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ABSTRACT

The Kentucky State plan for the collection of data concerning the cognitive, affective and psychomotor needs of school children is discussed. The plan entailed three phases: (1) the identification of learner needs; (2) translating needs priorities into program goals and field testing the program objectives in a sampling of school districts to provide baseline data for the establishment of district, regional, and State norms; and (3) refining of program objectives and further field testing to validate established norms. This report presents the baseline data generated by Phase II of the Needs Assessment Study. The following aspects are included: subject focus, planning phase, tests selected for the learner needs assessment pilot study, sampling procedures, learner performance objectives, statistical information, and identified needs. Data analyses of Grades 4, 7, and 11 are also included. (CK)

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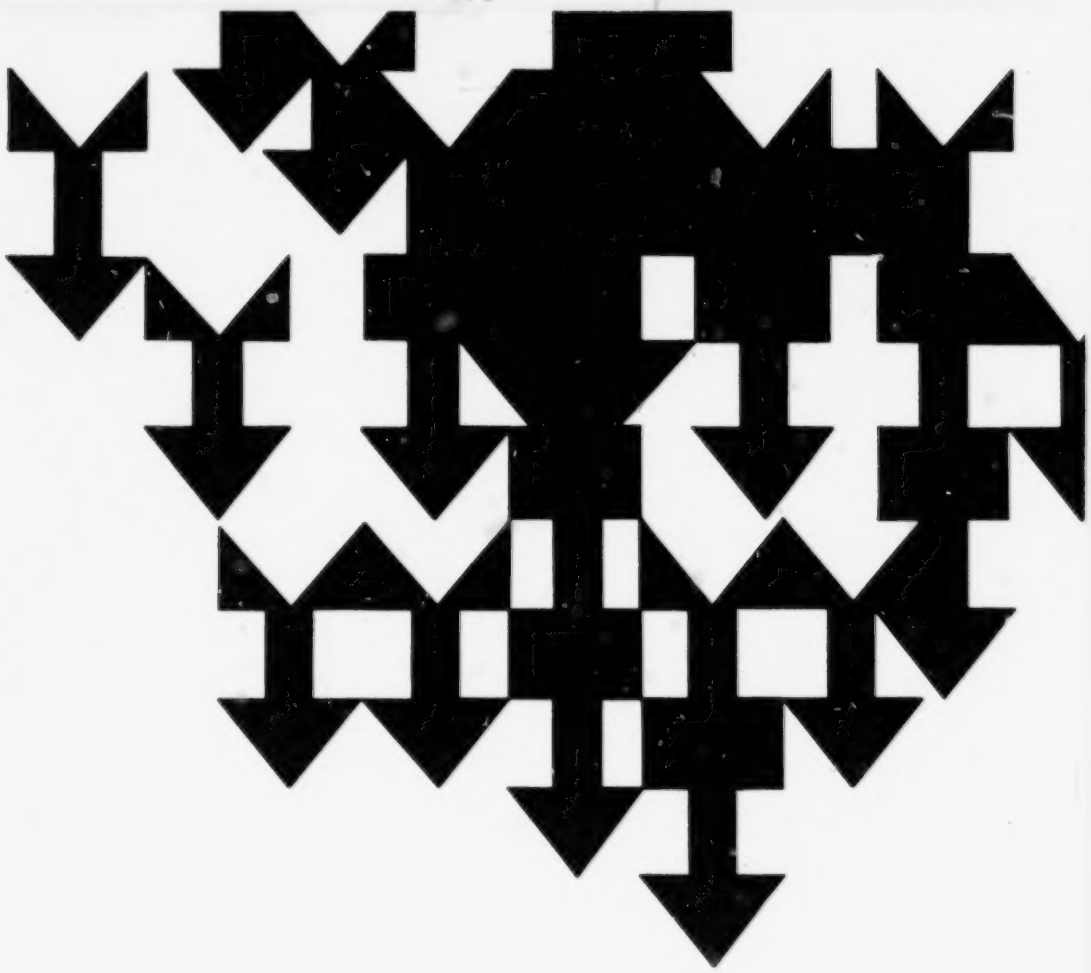

KENTUCKY EDUCATIONAL NEEDS ASSESSMENT STUDY

PHASE II

LEARNER NEEDS

STATE OF KENTUCKY
DEPARTMENT OF EDUCATION
FRANKFORT, KENTUCKY

ED 077940

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KENTUCKY EDUCATIONAL NEEDS ASSESSMENT STUDY OUTLINE

PHASE II: CONDENSED REPORT

Conducted by

Kentucky State Department of Education

In Cooperation With

EPIC Diversified Systems Corporation

September, 1971

SUPERINTENDENT'S MESSAGE

Public education in Kentucky faces a unique challenge in the 70's--a challenge growing out of the public's concern for greater educational accountability. Kentucky schools are receiving significantly more state and local tax dollars today than ever before. Also, increased Federal dollars now account for 17 cents of the total education dollar. Despite the many restrictions, Federal dollars help to provide a variety of special programs and services which benefit many Kentucky children and youth. With all the extra dollars, due to the reservoir of unmet needs and inflation, the school's most critical need continues to be more financial support for education.

In the 50's and 60's, the public responded extremely well to many challenges directly affecting the quality of education provided its children. Major milestones in freeing education from the shackles of the past were: (1) a Foundation Program made possible by repeal of Section 186 of the State Constitution in 1953; (2) increased revenue to improve and expand the Foundation Program through a voted sales tax in 1960; and, (3) an increased sales tax through legislative action in 1968--all made possible by support of the people expressing confidence in their schools. These major breakthroughs at the state level, and many more favorable decisions by the voters at the local level, have

enabled Kentucky to "hold the line" nationally in rapid growth areas and to move ahead in the state in providing many new facilities, programs, and services for its youth.

In Kentucky, as is generally true of the nation, there is an increasing reluctance on the part of the public to respond favorably to continuing requests for more revenue for education. Most concerns are pretaced by the question, "What did you do with that other money?" A growing concern voiced by the public appears to be that schools do not seem to be producing results commensurate with the increased funds already provided for education. Thus, a widening gap exists between the public and the schools as to what school support is actually necessary. Increasingly, educators are being held accountable for the gap.

In response to this new challenge, I wish to repeat here part of my Superintendent's Message to the profession and the public in School News for July-August, 1971.

It makes only common sense to assume that:

> Every school system should have some way of knowing what is working and what is not working. It should have a way of letting the public know about it. I believe that every classroom teacher should be able to measure the degree to which certain objectives are being realized. I call this accountability in education, and everybody is accountable. There is a collective responsibility for accountability among educators, legislators, parents and the public.
>
> Every legislative program for education in the future must embrace the idea of accountability. The public will no longer be satisfied with the traditional definition of quality education.

The public demand for accountability in education should not be interpreted as being opposed to adequate financial support for education. The public will support additional funds for education when their faith and confidence is restored in the integrity of the school system.

The people of any state will make good decisions on matters pertaining to their children if given the facts and time enough to study them. The successful story about Kentucky's Foundation Program verifies this conclusion.

Education in any state will never travel any faster than the people travel, and the people will never travel any faster than educational leadership travels. There is no substitute for leadership.

I can speak with pride about the progress being made in Kentucky education because of efforts to strengthen educational leadership.

Leadership at the state level is effective only to the extent that it stimulates leadership at the local level. I see evidence now of much progress at the local level.

Let's continue this progress as education's insurance for the future.

Wendell P. Butler
Superintendent of Public Instruction

FOREWORD

In 1969, Kentucky developed a state plan that would provide for the systematic collection of data concerning the cognitive, affective and psychomotor needs of Kentucky school children. The plan entailed three phases: (1) the identification of learner needs; (2) translating needs priorities into program goals and field testing the program objectives in a sampling of school districts to provide baseline data for the establishment of district, regional and state norms; (3) the refining of program objectives and further field testing to validate the established norms.

The first phase of Kentucky's plan was the Kentucky Educational Needs Assessment Study which identified one hundred specific needs subsumed under ten priority general needs of the state's learners as identified by citizens from every economic and social strata as well as professional educators in the state. The final report for this phase of the plan was published in September, 1970.

The second phase of the plan entailed the development and field testing of performance goals and objectives based on the data generated in Phase I of the needs study. For administrative reasons it was determined to restrict Phase II to the learner skills of reading and mathematics, grades 4, 7, and 11. Forty-one school districts volunteered to participate in Phase II--an average of approximately six districts per region.

Each participating school district selected a team of teachers and administrators to undergo intensive training in writing performance objectives and the selection of evaluation items for these objectives. The training sessions were conducted in each region in order that concensus could be reached on a regional basis concerning performance objectives and evaluation items. When the objectives and evaluation items had been selected in each region, the objectives were field tested.

This report presents the baseline data generated by Phase II of the Needs Assessment Study. As you read the report, your attention is directed to the comparison of regional and state data to national data. Individual school districts may compare school and district data to regional, state and national data. The end result of making these comparisons on cognitive, affective and psychomotor areas should lead to a more thorough understanding of learner needs at the school, district, regional and state levels.

Additionally, as you read this report, you should be looking ahead to the steps that logically follow: (1) an additional forty school districts entering Phase II, 1971-72; (2) the movement of the initial Phase II schools into Phase III; and, (3) the continuing field testing of the performance objectives in the participating school districts to validate district, regional and state norms.

Research, Planning and Evaluation Staff

TABLE OF CONTENTS

	Page
LIST OF TABLES.	xi
LIST OF FIGURES	xvii
INTRODUCTION	1
Subject or Discipline Focus	4
Planning Phase	5
Tests Selected for the Learner Needs Assessment Pilot Study	9
Sampling Procedures	10
Learner Performance Objectives.	14
Statistical Information	18
Identified Needs	20
DATA ANALYSES: Grade 4	23
DATA ANALYSES: Grade 7	49
DATA ANALYSES: Grade 11	75

LIST OF TABLES

Table		Page
1	Sample Sizes by District and Region	12
2	Student Rankings of Learner Needs for Total Sample and by Region, Grade 7.	21
3	Student Rankings of Learner Needs for Total Sample and by Region, Grade 11	22
4	Comprehensive Tests of Basic Skills Reading Scores, Grade 4	23
5	Comprehensive Tests of Basic Skills Reading Scores By Sex, Grade 4	25
6	Comprehensive Tests of Basic Skills Reading Scores According to Adjusted Gross Income Per Pupil, Grade 4	26
7	Comprehensive Tests of Basic Skills Reading Scores According to Per Pupil Expenditure Grade 4 . .	27
8	Comprehensive Tests of Basic Skills Reading Scores By Categories of Adjusted Gross Income Per Pupil and Per Pupil Expenditure, Grade 4 . . .	27
9	Comprehensive Tests of Basic Skills Mathematics Scores, Grade 4	28
10	Comprehensive Tests of Basic Skills Mathematics Scores by Sex, Grade 4	31
11	Comprehensive Tests of Basic Skills Mathematics Scores According to Adjusted Gross Income Per Pupil, Grade 4	32
12	Comprehensive Tests of Basic Skills Mathematics Scores According to Per Pupil Expenditure, Grade 4	32

Table		Page
13	Comprehensive Tests of Basic Skills Mathematics Scores by Categories of Adjusted Gross Income Per Pupil and Per Pupil Expenditure, Grade 4 . .	33
14	Grade Four Affective Response Mean Scores . . .	34
15	Grade Four Affective Response Mean Scores for Boys and Girls	35
16	Grade Four Affective Response Mean Scores for Adjusted Gross Income Per Student	35
17	Grade Four Affective Response Mean Scores for Per Pupil Expenditure	36
18	Grade Four Affective Response Mean Scores by Categories of Adjusted Gross Income Per Pupil and Per Pupil Expenditure	37
19	Grade Four Boys AAHPER Physical Fitness Test Results	38
20	Grade Four Girls AAHPER Physical Fitness Test Results	39
21	Grade Four Boys AAHPER Physical Fitness Test Results of Above and Below Median Adjusted Gross Income Per Pupil	41
22	Grade Four Girls AAHPER Physical Fitness Test Results of Above and Below Median Adjusted Gross Income Per Pupil	42
23	Grade Four Boys AAHPER Physical Fitness Test Results of Above and Below Median Per Pupil Expenditure	43
24	Grade Four Girls AAHPER Physical Fitness Test Results of Above and Below Median Per Pupil Expenditure	44

Table		Page
25	Grade Four Boys AAHPER Physical Fitness Test Results by Categories of Adjusted Gross Income Per Pupil and Per Pupil Expenditure	45
26	Grade Four Girls AAHPER Physical Fitness Test Results by Categories of Adjusted Gross Income Per Pupil and Per Pupil Expenditure	46
27	California Achievement Test Reading Scores, Grade 7.	49
28	California Achievement Test Reading Scores by Sex, Grade 7.	52
29	California Achievement Test Reading Scores According to Adjusted Gross Income Per Pupil	52
30	California Achievement Test Reading Scores According to Per Pupil Expenditure, Grade 7	53
31	California Achievement Test Reading Scores by Categories of Adjusted Gross Income Per Pupil and Per Pupil Expenditure, Grade 7	54
32	California Achievement Tests Mathematics Scores, Grade 7	55
33	California Achievement Test Mathematics Scores by Sex, Grade 7	57
34	California Achievement Test Mathematics Scores According to Adjusted Gross Income Per Pupil Grade 7	58
35	California Achievement Test Mathematics Scores According to Per Pupil Expenditure, Grade 7 . .	58
36	California Achievement Test Mathematics Scores by Categories of Adjusted Gross Income Per Pupil and Per Pupil Expenditure, Grade 7	59
37	Grade Seven Affective Response Mean Scores . . .	60

Table		Page
38	Grade Seven Affective Response Mean Scores for Boys and Girls	61
39	Grade Seven Affective Response Mean Scores for A Adjusted Gross Income Per Student	61
40	Grade Seven Affective Response Mean Scores for Per Pupil Expenditure.	62
41	Affective Response Mean Scores by Categories of Adjusted Gross Income Per Pupil and Per Pupil Expenditure, Grade 7	63
42	Grade Seven Boys AAHPER Physical Fitness Test Results	64
43	Grade Seven Girls AAHPER Physical Fitness Test Results	65
44	Grade Seven Boys AAHPER Physical Fitness Test Results of Above and Below Median Adjusted Gross Income Per Pupil	67
45	Grade Seven Girls AAHPER Physical Fitness Test Results of Above and Below Median Adjusted Gross Income Per Pupil	68
46	Grade Seven Boys AAHPER Physical Fitness Test Results of Above and Below Median Per Pupil Expenditure.	69
47	Grade Seven Girls AAHPER Physical Fitness Test Results of Above and Below Median Per Pupil Expenditure.	70
48	Grade Seven Boys AAHPER Physical Fitness Test Results by Categories of Adjusted Gross Income Per Pupil and Per Pupil Expenditure	71
49	Grade Seven Girls AAHPER Physical Fitness Test Results by Categories of Adjusted Gross Income Per Pupil and Per Pupil Expenditure	72

Table		Page
50	Grade Eleven Affective Response Mean Scores . . .	91
51	Grade Eleven Affective Response Mean Scores for Boys and Girls	
52	Grade Eleven Affective Response Mean Scores for Adjusted Gross Income Per Student	93
53	Grade Eleven Affective Response Mean Scores for Per Pupil Expenditure	93
54	Grade Eleven Affective Response Mean Scores by Categories of Adjusted Gross Income Per Pupil and Per Pupil Expenditure	94
55	Grade Eleven Boys AAHPER Physical Fitness Test Results	95
56	Grade Eleven Girls AAHPER Physical Fitness Test Results	97
57	Grade Eleven Boys AAHPER Physical Fitness Test Results of Above and Below Median Adjusted Gross Income Per Pupil	98
58	Grade Eleven Girls AAHPER Physical Fitness Test Results of Above and Below Median Adjusted Gross Income Per Pupil	99
59	Grade Eleven Boys AAHPER Physical Fitness Test Results of Above and Below Median Per Pupil Expenditure	100
60	Grade Eleven Girls AAHPER Physical Fitness Test Results of Above and Below Median Per Pupil Expenditure	101
61	Grade Eleven Boys AAHPER Physical Fitness Test Results by Categories of Adjusted Gross Income Per Pupil and Per Pupil Expenditure	102
62	Grade Eleven Girls AAHPER Physical Fitness Test Results by Categories of Adjusted Gross Income Per Pupil and Per Pupil Expenditure	103

LIST OF FIGURES

Figure		Page
1	Stanford Achievement High School Basic Battery Test 2, Numerical Competence, Grade 11 . . .	76
2	Stanford Achievement High School Basic Battery Test 3, Mathematics Part A.	
3	Stanford Achievement High School Basic Battery Test 4, Reading, Grade 11	82
4	Stanford Achievement Test High School Basic Battery Scores According to Adjusted Gross Income Per Pupil, Grade 11	85
5	Stanford Achievement Test High School Basic Battery Scores According to Per Pupil Expenditure	87
6	Stanford Achievement Test High School Basic Battery Scores by Categories of Adjusted Gross Income Per Pupil and Per Pupil Expenditure. .	89

INTRODUCTION

According to a letter set forth by the United States Office of Education in 1969, a given State's ESEA Title III State Plan was to include the procedures for conducting a State-wide needs assessment in order to identify critical needs. That letter stated:

> This section should be redeveloped by adding a phase or phases which would provide for a systematic collection of additional data concerning the cognitive, affective and psychomotor needs of the learner as opposed to institutional or administrative needs. Such data to be shown to be current, reliable, valid, and appropriately treated. The evidence so obtained should then, be refined into a clear-cut statement of critical needs in terms of learner needs. This later statement should include procedures and criteria for determining criticality of needs, extent to which the needs are actually based on the assessment data, and the extent to which the needs of various areas of the State are reflected in the needs.[1]

A Kentucky State Department of Education Needs Assessment Survey Committee[2] was formed. This Committee, with the assistance of the Division of Educational Research, (1) developed a survey questionnaire[3], (2) conducted a survey from a sample of 4,657 public school

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[1] Letter from B. Alden Lilywhite, Deputy Associate Commissioner of Elementary and Secondary Education, U. S. Office of Education, Washington, D. C., dated July 30, 1969.

[2] Kentucky Educational Needs Assessment Study: Phase I Report, Division of Educational Research, State Department of Education, Frankfort, Kentucky, Spring, 1971.

[3] Ibid.

personnel, 380 non-public school personnel, and 2,702 citizens, and (3) prepared the Kentucky Educational Needs Assessment Study--Phase I Report.

The publication of the Final Report in September of 1970 terminated Phase I activities and identified the following specific concerns of Kentucky educators and citizens in rank order of priority:

1. Learning Skills
2. Vocational Knowledge and Skills
3. Human Relations
4. New Approaches to Learning
5. Citizenship
6. Basic Knowledge Areas
7. Social and Economic Disadvantages
8. School Readiness
9. Physical and Mental Differences
10. Physical and Mental Health

Under the direction of the Division of Educational Research, the Kentucky Needs Assessment Program entered Phase II in order to:

1. establish performance objectives for selected concerns from Phase I, mainly

    a. learning skills--ranked first
    b. human relations--ranked second
    c. basic knowledge areas--ranked sixth
    d. physical and mental health--ranked tenth

2. collect baseline data in order to apply measures of accountability, based upon performance objectives related to the aforementioned concerns in order to determine learner needs.

To accomplish the goals of Phase II, the following activities were planned:

1. A sample of school districts will be selected to:

   a. help develop and verify criterion measures (behavioral or performance objectives) keyed to the limited number of learners' needs selected for Phase II attack,
   b. help develop and verify assessment instrument(s) containing test items which are based on the criterion measures, and
   c. administer the assessment instrument(s) to a representative sample of students so that the instrument(s) may be validated and/or modified for further usage, and a perspective may be obtained concerning the precise extent of learners' needs.

2. Participating school districts will be assisted at the regional or State level by teams of consultants competent in both the development of criterion measures and the construction of test items and the format of student assessment instrument(s). Additionally, materials, pamphlets, filmstrips, and tapes will be made available. Each of these school districts will be asked to form a team composed of a minimum of one each: elementary teacher, elementary principal, secondary teacher, secondary principal, and supervisor or central office curriculum worker.

3. School district teams will be convened in each of the ESEA Title III regions to:

   a. provide advice and counsel in the writing of appropriate criterion measures,
   b. provide advice and counsel in the development of the assessment instrument(s),
   c. obtain information concerning the administration of the assessment instrument(s), and

d. provide advice and counsel in the modification of the assessment instrument(s) after they have been administered and scored.

Subject or Discipline Focus

Criterion measures and the parallel assessment instrument(s) will be restricted to "Learning Skills," (1) in the subject areas of reading and mathematics, and (2) to grade levels 4, 7, and 11. This restriction was a logistical necessity for this initial pilot effort.

Guidelines, criteria for determining quality of needs assessment strategies, and documentation for learner needs were adopted from the Educational Needs Assessment Guidelines prepared by the U. S. Office of Education, 1970. They included:

1. The overall concept of educational needs assessment defines an educational need as the difference between the current status of the learner and the desired learner outcomes.

2. The assessment strategy includes both long- and short-range objectives.

3. The strategy includes specific activities which have been designed to achieve each objective included in the strategy.

4. The strategy includes a time frame for accomplishing each activity.

5. The strategy is sufficiently constructed so as to consider all the required elements.

6. Student learning goals are established for the purpose of determining children's needs through the educational needs assessment.

7. The student learning goals are behaviorally stated and representative of cognitive, affective, and psychomotor learning.

8. The student learning goals are sufficiently refined to make them measurable objectives for student learning.

Planning Phase

The planning of a systematic needs assessment began in the fall of 1970, with the staff of the Division of Educational Research under the direction of Dr. D. R. Ellswick. The following activities were planned and implemented for the Learner Needs Pilot Program:

Date	Activities
January 13-14, 1971	An orientation meeting was conducted at Park Mammoth Resort for volunteer districts of the West Area composed of Regions I, II, III, and V. Each of the six participating school districts in each Region provided two representatives, designated by the school district superintendent. Regional Task Groups were formed.
January 15-16, 1971	An orientation meeting was conducted at the Imperial House Ramada Inn (Lexington) for volunteer districts of the East Area, composed of Regions IVA, IVB, VI, and VII. Each of the six participating school districts in each Region provided two representatives, designated by the school district superintendent. Regional Task Groups were formed.

Date	Activities
February 2-3, 1971	The Region III Task Group met in Louisville with EPIC consultants and Kentucky State Department staff to develop regional learner performance objectives. Participating school districts were: Bullitt County Jefferson County Oldham County Trimble County The Region II Task Group met in Owensboro with EPIC consultants and Kentucky State Department staff to develop regional learner performance objectives. Participating school districts were: Daviess County Owensboro Independent Hardin County Ohio County Warren County Bowling Green Independent
February 4-5, 1971	The Region I Task Group met in Paducah with EPIC consultants and Kentucky State Department staff to develop regional learner performance objectives. Participating school districts were: Christian County Henderson County Marshall County McCracken County Paducah Independent Union County
February 15-16, 1971	The Region V Task Group met in Somerset with EPIC consultants and Kentucky State Department staff to develop regional learner performance objectives. Participating school districts were:

Date	Activities
	Taylor County Pulaski County Somerset Independent Monticello Independent McCreary County Wayne County
February 16-17, 1971	The Region IV Task Group met in Lexington with EPIC consultants and Kentucky State Department staff to develop regional learner performance objectives. Participating school districts were: Campbell County Clark County Bardstown Independent Mercer County Harrodsburg Independent Fayette County
February 17-18, 1971	The Region VI Task Group met at Cumberland Falls with EPIC consultants and Kentucky State Department staff to develop regional learner performance objectives. Participating school districts were: Knox County Harlan County Hazard Independent Madison County Perry County Breathitt County Middlesboro Independent
February 25-26, 1971	The Region VII Task Group met at Carter Caves with EPIC consultants and Kentucky State Department staff to develop regional learner performance objectives. Participating school districts were:

Date	Activities
	Fleming County Greenup County Bath County Mason County Paintsville Independent Boyd County
March 3, 1971	Sampling procedures were developed by the Kentucky State Department of Education and EPIC Diversified Systems Corporation staff.
March 10, 1971	Task Group leaders were forwarded packets of performance objectives for review and revisions.
March 23, 1971	Each Task Group leader met with Kentucky State Department staff and EPIC consultants to: (1) refine learner performance objectives for the State and regions, (2) select tests to be utilized in the Pilot Needs Assessment Study, (3) establish a date for testing.
April 2, 1971	Kentucky State Department staff selected the primary variables to be utilized in the Pilot Needs Assessment Study.
April 13, 1971	EPIC staff refined affective test instruments and forwarded them to the Kentucky State Department of Education to be printed and prepared for administration.
April 15, 1971	Test information packets were forwarded by Kentucky State Department staff to participating school districts for review.

Date	Activities
April 26, 1971	Orientation meeting was held for participating school districts regarding test administration and proceedings.
May, 1971	Task Group staff, or designee, administered selected tests to identified random sample (approximately 20%) of students.
July, 1971	Analysis of test data.
August, 1971	Preparation of Learner Needs Pilot Study Condensed Report.
September, 1971	Presentation of Learner Needs Pilot Study Condensed Report to East and West Area Task Groups.

Tests Selected for the Learner Needs Assessment Pilot Study

The following tests were selected for assessing learner needs in mathematics and reading:

Grade 4: Comprehensive Tests of Basic Skills, Form Q, Level I, published by California Test Bureau, a Division of McGraw-Hill Book Company, Monterey, California.

Grade 7: California Achievement Tests, Form A, Level 4, published by California Test Bureau, a Division of McGraw-Hill Book Company, Monterey, California.

Grade 11: Stanford Achievement Test High School Battery, Form W, published by Harcourt, Brace and World, Inc., New York.

A student attitude inventory for grades 4, 7, and 11 was selected to assess learner responses toward:

1. self
2. peers
3. reading
4. mathematics
5. school

The American Association for Health, Physical Education, and Recreation (AAHPER) Physical Fitness Test was selected to be given at the option of the participating school district. The test includes pull-ups (boys), flexed-arm hang (girls), sit-ups, shuttle run, standing broad jump, fifty-yard dash, softball throw, and the 600-yard walk.

Sampling Procedures

The sampling procedures detailed in this description were determined adequate to arrive at regional norms. This description details the number of students for each grade and district to be included in the sample for the Phase II Needs Assessment.

The following steps were taken in arriving at the sample figures:

1. The per cent of State-wide student enrollment for grades 4, 7, and 11 for each region was computed and applied to a sample size of 5,000 students to determine the number of students to be included for each region and grade level within region.

2. Assuming that the districts participating are representative of the various regions, the per cent enrollment for each district and grade level was computed and applied to the regional figures arrived at in Step 1.

3. Where figures for particular districts for any grade level fell below a sample N of twenty-five, enough students were added to bring the sample N to at least twenty-five. This was done in order to assure that district feedback from the needs assessment testing would be based on enough students to be valid and usable for decision-making at the local level. Although the addition of students for particular districts does distort the percentage relationship to a slight degree, it is thought that the advantages of adding these students outweigh the disadvantages.

Procedures for Identifying Schools. Districts with three or less schools at any grade level required (4, 7, or 11) will identify all three schools to be sampled. Districts with more than three, but less than ten, will identify the schools to be sampled by numbering the schools consecutively on a proportionate basis and then drawing the numbers of two schools from a table of random numbers. School districts with more than ten schools will consecutively number each school on a proportionate basis and then draw from a table of random numbers twenty per cent of the total number of schools as the sample number of schools.

By basing the sample on a proportionate basis of school population at each grade level and then by randomly selecting the sample, the district can assure that the sample of schools would be representative of the schools in the district and consequently representative of the schools in the region. A base figure of twenty-five pupils per grade was used to determine the proportionate listing of schools.

Procedures for Identifying Sample Students:

1. a. Districts with one or three, or less, schools at any grade level will sample students from each school. The students required for the sample will be as evenly divided among the schools as possible. In addition, the number of students required from each school will be as evenly divided among the English class sections as possible.
   b. In order to randomly select the required number of students from each room, every fifth student will be selected, beginning with the row of students furthest to the left of the teacher as she faces the students and continuing down each row until the required number has been selected.
   c. Districts with more th n four, but less than ten, schools at any grade level will sample from at least two schools. Those districts with more than ten schools will sample from 20% of the schools. When the schools have been identified, the procedure described above will be used to select the required number of students.

TABLE 1

SAMPLE SIZES BY DISTRICT AND REGION

Region	District	Total of Students in Sample	Grade 4	Grade 7	Grade 11
I	Christian County	126	45	45	36
	Henderson County	96	34	34	28
	Marshall County	90	32	32	26
	McCracken County	120	43	43	34
	Paducah Independent	114	41	41	32
	Union County	90	32	32	26
	TOTAL REGION I	636	227	227	182

Region	District	Total of Students in Sample	Grade 4	Grade 7	Grade 11
II	Daviess County	144	52	53	39
	Owensboro Independent	136	49	50	37
	Hardin County	168	60	61	47
	Ohio County	90	32	33	25
	Warren County	112	40	41	31
	Bowling Green Independent	104	37	38	29
	TOTAL REGION II	754	270	276	208
III	Bullitt County	90	32	32	26
	Jefferson County	990	356	356	278
	Oldham County	90	32	32	26
	TOTAL REGION III	1170	420	420	330
IVA	Campbell County	100	44	32	24
	Trimble County	100	44	32	24
IVB	Clark County	104	46	33	25
	Bardstown Independent	100	44	32	24
	Mercer County	100	44	32	24
	Harrodsburg Independent	100	44	32	24
	Fayette County	645	284	206	155
	TOTAL REGION IV	1249	550	399	300
V	Taylor County	90	33	32	25
	Pulaski County	99	37	36	26
	Somerset Independent	90	33	32	25
	Monticello Independent	90	33	32	25
	McCreary County	90	33	32	25
	Wayne County	90	33	32	25
	TOTAL REGION V	549	202	196	151
VI	Knox County	104	38	39	27
	Harlan County	162	60	61	41
	Hazard Independent	100	37	38	25
	Madison County	100	37	38	25
	Perry County	123	46	47	30
	Breathitt County	100	37	38	25
	Middlesboro	100	37	38	25
	TOTAL REGION VI	789	292	299	198
VII	Fleming County	100	36	38	26
	Greenup County	174	63	65	46
	Bath County	100	36	38	26
	Mason County	100	36	38	26
	Paintsville Independent	100	36	38	26
	Boyd County	144	52	53	39
	TOTAL REGION VII	718	259	270	189
TOTAL SAMPLE		5865	2220	2087	1558

Learner Performance Objectives[4]

As a result of the Pilot Project Task Group activities, the following learner performance objectives were developed for grades 4, 7, and 11. Asterisks denote those learner objectives for which valid and reliable existing measurement could not be selected.

Listed are the basic minimum performance objectives for the majority of fourth, seventh, and eleventh graders in the participating school districts. Although the objectives are similar for all three grades, the content and measurement items differ as to difficulty levels as determined by items in the selected items.

FOURTH GRADE

1. Fourth grade students in reading are expected to score a 4.7 grade equivalent score by displaying ability to:

	Behavior	Concept or Skill	Comprehensive Tests of Basic Skills Measurement
1.	Know	vocabulary	CTBS Subtest 1
2.	Comprehend	words and phrases	CTBS Subtest 1
3.	Comprehend	reading content (sentences, paragraphs, stories)	CTBS Subtest 2
4.	Analyze	reading content (sentences, paragraphs, stories)	CTBS Subtest 2
5.	Apply	reference skills (dictionary, glossary, tables of content, index, library catalogue cards)	CTBS Subtest 10
6.	Apply	word attack skills (phonics, syllabication, word structure, context clues)	**

[4]Developing and Writing Behavioral Objectives, Booklet #2, Educational Innovators Press, Tucson, Arizona, 1970.

2. Fourth grade students in mathematics are expected to score a 4.7 grade equivalent score by displaying ability to:

	Behavior	Concept or Skill	Comprehensive Tests of Basic Skills Measurement
1.	Apply	basic operations of whole numbers (addition, subtraction, multiplication, division)	CTBS Subtest 6
2.	Comprehend	units of measurement (time, money, linear)	CTBS Subtest 7 & 8
3.	Comprehend	numbers and numerals	CTBS Subtest 6, 7, and 8
4.	Comprehend	terms and symbols (operations)	CTBS Subtest 7 & 8
5.	Know	geometry	CTBS Subtest 7 & 8
6.	Apply	problem solving skills	CTBS Subtest 8
7.	Comprehend	graphs and charts	CTBS Subtest 10
8.	Comprehend	properties (associative, cumulative, distributive, zero, unity)	**
9.	Comprehend	sets (union, empty, intersection, subsets)	**

3. Fourth grade students will respond positively toward self, school, peers, math, reading as measured by the Kentucky Student Attitude Inventory.

4. Fourth grade students will demonstrate precision according to AAHPER satisfactory scores on selected psychomotor skills as measured by the AAHPER Physical Fitness Test.

SEVENTH GRADE

1. Seventh grade students in reading are expected to score a 7.7 grade equivalent score by displaying ability to:

	Behavior	Concept or Skill	California Achievement Test Measurement
1.	Know	vocabulary	CAT Section 1
2.	Comprehend	words and phrases	CAT Section 2
3.	Comprehend	reading content (sentences, paragraphs, stories)	CAT Section 2
4.	Apply	word attack skills (phonics, syllabication, word structure, context clues)	**
5.	Analyze	reading content (sentences, paragraphs, stories)	**
6.	Apply	reference skills (dictionary, glossary, tables of content, index, library catalogue cards)	**

2. Seventh grade students in mathematics are expected to score a 7.7 grade equivalent score by displaying ability to:

	Behavior	Concept or Skill	California Achievement Test Measurement
1.	Apply	basic operations of whole numbers (addition, subtraction, multiplication, division)	CAT Section 3, basic operations; Section 6, fractions
2.	Comprehend	units of measurement (money, linear, liquid)	CAT Section 4
3.	Comprehend	numbers and numerals	CAT Section 4
4.	Comprehend	terms and symbols (operations)	CAT Section 4
5.	Comprehend	sets (union, empty, intersection, subsets)	CAT Section 5
6.	Comprehend	properties (associative, cumulative, distributive, zero, unity)	**
7.	Apply	problem solving skills	**
8.	Comprehend	graphs and charts	**

3. Seventh grade students will respond positively toward self, school, peers, math, reading as measured by the Kentucky Student Attitude Inventory.

4. Seventh grade students will demonstrate precision according to AAHPER satisfactory scores on selected psychomotor skills as measured by the AAHPER Physical Fitness Test.

ELEVENTH GRADE

1. Eleventh grade students in reading are expected to score a 50.0 T-standard score by displaying their ability to:

	Behavior	Concept or Skill	Stanford Achievement Test Measurement
1.	Comprehend	words and phrases	SAT Test 4
2.	Comprehend	reading content (sentences, paragraphs, stories)	SAT Test 4
3.	Analyze	reading content (sentences, paragraphs, stories)	SAT Test 4
4.	Know	vocabulary	**
5.	Apply	word attack skills (phonics, syllabication, word structure, context clues)	**
6.	Apply	reference skills (dictionary, glossary, tables of content, index, library catalogue cards)	**

2. Eleventh grade students in mathematics are expected to score a 50.0 T-standard score by displaying ability to:

	Behavior	Concept or Skill	Stanford Achievement Test Measurement
1.	Apply	basic operations of whole numbers (addition, subtraction, multiplication, division)	SAT Test 2
2.	Comprehend	units of measurement (time, money, linear, liquid)	SAT Test 2
3.	Comprehend	numbers and numerals	SAT Test 2
4.	Comprehend	terms and symbols (operations)	SAT Test 2
5.	Know	geometry (points, lines, planes, angles)	SAT Test 2
6.	Comprehend	properties (associative, cumulative, distributive, zero, unity)	SAT Test 3
7.	Apply	problem solving skills	SAT Test 3
8.	Comprehend	sets (union, empty, intersection, subsets)	SAT Test 2 & 3
9.	Comprehend	graphs and charts	SAT Test 2

3. Eleventh grade students will respond positively toward self, school, peers, math, reading as measured by the Kentucky Student Attitude Inventory.

4. Eleventh grade students will demonstrate precision according to AAHPER satisfactory scores on selected psychomotor skills as measured by the AAHPER Physical Fitness Test.

Statistical Information

In order to gain specific and meaningful information from the Learners Needs Assessment Pilot Study, the following variables were selected by the Kentucky State Department of Education. These variables were utilized in the data analysis to determine various learner needs and related factors.

The variables selected were:

1. Geographic representation

   a. State
   b. ESEA Title III Regions

2. Sex

   a. boy
   b. girl

3. Grade level

   a. four
   b. seven
   c. eleven

4. Adjusted gross income per pupil[5]

   a. above median adjusted gross income per pupil
   b. below median adjusted gross income per pupil

5. Per pupil expenditure[6]

   a. above median per pupil expenditure
   b. below median per pupil expenditure

6. Total student population by grade level

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[5]Broadman, Gerald and Dewey Stollar, Personal Income by School District in U. S., Gainesville, Florida, NEA Finance Project, 1971.

[6]Profiles of Kentucky Public Schools, Kentucky Department of Education, Bureau of Administration and Finance, April, 1970.

Identified Needs

Upon examining the Phase I Survey of Learner Needs involving more than 5,000 citizens and educators, it was discovered that student responses were not included. As a part of the Phase II Pilot Learner Needs Study, nine of the Phase I identified needs were presented to participating seventh and eleventh grade students to rank. The rankings are displayed in Tables 2 and 3.

Based upon the analysis of the collected data, several learner needs were identified in the cognitive, affective, and psychomotor behavioral domains. The analysis is presented by grade levels 4, 7, and 11. Preceding the figures, tables, and narrative, the learner needs were identified in a summary table by Region and State.

TABLE 2

STUDENT RANKINGS OF LEARNER NEEDS FOR
TOTAL SAMPLE AND BY REGION
Grade 7

Learner Needs	Total Sample	Region I	Region II	Region III	Region IV	Region V	Region VI	Region VII	Phase I Educator and Lay Public Rankings
Learning skills (reading, writing, thinking, questioning)	2	2	2	2	2	2	1	2	1
Citizenship (understanding government, responsibility, politics, economy)	5	5	5	5	5	4	4	4	5
Human relations (attitudes, dignity, appreciation of work, commitment)	4	4	4	4	4	5	5	5	3
Basic knowledge (English, social studies, mathematics, science, health)	1	1	1	1	1	1	2	1	6
Vocational knowledge and skills (variety of careers, occupational skills)	6	6	6	6	6	6	6	6	2
Physical and mental health (physical activity, nutrition, safety, positive attitude)	3	3	3	3	3	3	3	3	10
New approaches to learning (individualized programs, current subjects, materials)	7	7	7	7	7	8	7	7	4
Social and economic disadvantages (social, economic barriers, school schedules)	9	9	9	9	9	9	9	9	7
Physical and mental differences (crippled, emotionally disturbed, handicapped)	8	8	8	8	8	7	8	8	9

TABLE 3

STUDENT RANKINGS OF LEARNER NEEDS FOR
TOTAL SAMPLE AND BY REGION
Grade 11

Learner Needs	Total Sample	Region I	Region II	Region III	Region IV	Region V	Region VI	Region VII	Phase I Educator and Lay Public Rankings
Learning skills (reading, writing, thinking, questioning)	2	2	1	1	1	2	1	2	1
Citizenship (understanding government, responsibility, politics, economy)	4	4	4	5	3	4	5	4	5
Human relations (attitudes, dignity, appreciation of work, commitment)	1	1	2	2	2	1	3	1	3
Basic knowledge (English, social studies, mathematics, science, health)	3	3	3	3	1	3	2	3	6
Vocational knowledge and skills (variety of careers, occupational skills)	6	6	5	4	5	6	6	6	2
Physical and mental health (physical activity, nutrition, safety, positive attitude)	5	5	6	6	4	5	4	5	10
New approaches to learning (individualized programs, current subjects, materials)	7	7	7	7	6	7	7	7	4
Social and economic disadvantages (social, economic barriers, school schedules)	8	8	9	8	7	9	9	9	7
Physical and mental differences (crippled, emotionally disturbed, handicapped)	9	9	8	9	8	8	8	8	9

DATA ANALYSES: GRADE FOUR

Learner Cognitive Needs

Objective #1

Fourth grade students in reading are expected to score a grade equivalent of 4.7 by displaying ability to:

	Behavior	Concept or Skill	Comprehensive Tests of Basic Skills Measurement
1.	Know	vocabulary	CTBS Subtest 1
2.	Comprehend	words and phrases	CTBS Subtest 1
3.	Comprehend	reading content (sentences, paragraphs, stories)	CTBS Subtest 2
4.	Analyze	reading content (sentences, paragraphs, stories)	CTBS Subtest 2
5.	Apply	reference skills (dictionary, glossary, tables of content, index, library catalogue cards)	CTBS Subtest 10

TABLE 4

COMPREHENSIVE TESTS OF BASIC SKILLS READING SCORES
Grade 4

	N	Vocabulary	N	Comprehension	N	Composite
Region I	227	4.8*	227	5.1*	227	4.9*
Region II	269	4.6	268	4.7*	268	4.6
Region III	417	5.0*	416	5.3*	416	5.1*
Region IV	542	4.4	542	4.4	542	4.3
Region V	180	4.3	180	4.3	180	4.3
Region VI	312	3.8	312	3.9	312	3.8
Region VII	285	4.3	285	4.5	285	4.5
Kentucky Average	2232	4.5	2230	4.6	2230	4.6
National Average		4.7		4.7		4.7

*proficiency level attained

Note that the Comprehensive Tests of Basic Skills Test grade equivalent norm is 4.7 for all reading subtests. The Kentucky Pilot sample of fourth graders yielded a 4.6 grade equivalent score, thus indicating a need in vocabulary and reading comprehension. According to the data displayed in Table 4, Regions that failed to exhibit the proficiency level of 4.7 were:

1. Vocabulary--Regions II, IV, V, VI, and VII
2. Comprehension--Regions IV, V, VI, and VII

A total sample item analysis identified the following items where more than 50% of the students failed to meet the expected proficiency level:

CTBS--Reading Vocabulary Test

Items: None

CTBS--Reading Comprehension Tests

Items: 9, 10, 26, 28, 45

An item analysis by Region identified the following items where more than 50% of the students failed to meet the expected proficiency level:

Reading Vocabulary Test

Region I: 17, 21

Region II: 17, 21, 28, 31, 34, 35, 36, 40

Region III: 17

Region IV: 17, 21, 34 35, 36, 37, 40

Region V: 17, 28, 35, 38, 40

Region VI: None

Region VII: None

Reading Comprehension Test

Region I: 11, 38, 44, 45

Region II: 11, 13, 35, 36, 37, 38, 44, 45

Region III: 38, 44, 45

Region IV: 11, 35, 37, 38, 45

Region V: 11, 19, 36, 37, 38, 44, 45

Region VI: 4, 9, 10, 16, 19, 20, 24, 26, 28, 38, 41, 42, 43, 44, 45

Region VII: 28, 45

TABLE 5

COMPREHENSIVE TESTS OF BASIC SKILLS READING SCORES BY SEX
Grade 4

	N	Vocab-ulary	N	Compre-hension	N	Com-posite
Boys	1102	4.5	1101	4.4	1101	4.5
Girls	1079	4.5	1078	4.8*	1078	4.6
Kentucky Average	2181	4.5	2179	4.6	2179	4.6
National Average		4.7		4.7		4 7

*proficiency level attained

Table 5 displays reading scores by boys and girls. The girls' scores indicate a need in vocabulary, while the boys' scores indicate a need in all areas.

TABLE 6

COMPREHENSIVE TESTS OF BASIC SKILLS READING SCORES
ACCORDING TO ADJUSTED GROSS INCOME PER PUPIL
Grade 4

	N	Vocab-ulary	N	Compre-hension	N	Com-posite
Above Median	1400	4.6	1399	4.8*	1399	4.7*
Below Median	832	4.3	831	4.3	831	4.3
Kentucky Average	2232	4.5	2230	4.6	2230	4.6
National Average		4.7		4.7		4.7

*proficiency level attained

The data displayed in Table 6 indicate that the below median adjusted gross income per pupil group had needs in all areas of reading. A need in vocabulary was identified for the above median group.

TABLE 7

COMPREHENSIVE TESTS OF BASIC SKILLS READING SCORES
ACCORDING TO PER-PUPIL EXPENDITURE
Grade 4

	N	Vocab-lary	N	Compre-hension	N	Com-posite
Above Median	1383	4.6	1382	4.8*	1382	4.7*
Below Median	849	4.2	848	4.2	848	4.3
Kentucky Average	2232	4.5	2230	4.6	2230	4.6
National Average		4.7		4.7		4.7

*proficiency level attained

The data presented in Table 7 indicate a need in all areas of reading for the below median group, but only in vocabulary for the above median group.

TABLE 8

COMPREHENSIVE TESTS OF BASIC SKILLS READING SCORES BY CATEGORIES OF ADJUSTED GROSS INCOME PER PUPIL AND PER-PUPIL EXPENDITURE
Grade 4

	N	Vocab-ulary	N	Compre-hension	N	Com-posite
A	1075	4.7*	1074	4.9*	1074	4.8*
B	325	4.1	325	4.2	325	4.5
C	308	4.4	308	4.5	308	4.6
D	524	4.2	523	4.2	523	4.2
Kentucky Average	2232	4.5	2230	4.6	2230	4.6
National Average		4.7		4.7		4.7

*proficiency level attained

A: Above Median Adjusted Gross Income--Above Median Per Pupil Expenditure
B: Above Median Adjusted Gross Income--Below Median Per Pupil Expenditure
C: Below Median Adjusted Gross Income--Above Median Per Pupil Expenditure
D: Below Median Adjusted Gross Income--Below Median Per Pupil Expenditure

Table 8 data indicate a need in all areas of reading for categories B, C, and D.

Objective #2

Fourth grade students in mathematics are expected to score a grade equivalent of 4.7 by displaying ability to:

	Behavior	Concept or Skill	C Comprehensive Tests of Basic Skills Measurement
1.	Apply	basic operations of whole numbers (addition, subtraction, multiplication, division)	CTBS Subtest 6
2.	Comprehend	units of measurement (time, money, linear)	CTBS Subtest 7 & 8
3.	Comprehend	numbers and numerals	CTBS Subtest 6, 7 and 8
4	Comprehend	terms and symbols (operations)	CTBS Subtest 7 & 8
5.	Know	geometry	CTBS Subtest 7 & 8
6.	Apply	problem-solving skills	CTBS Subtest 8
7.	Comprehend	graphs and charts	CTBS Subtest 10

TABLE 9

COMPREHENSIVE TESTS OF BASIC SKILLS MATHEMATICS SCORES
Grade 4

	N	Computation	N	Concepts	N	Applications	N	Composite
Region I	224	4.5	224	5.0*	224	4.5	224	4.5
Region II	267	4.6	267	4.7*	267	4.4	267	4.5
Region III	418	4.7*	411	5.4*	410	5.1*	409	4.9*
Region IV	539	4.4	539	4.4	527	4.1	526	4.3
Region V	179	4.5	178	4.5	178	4.2	178	4.4
Region VI	236	4.3	233	4.1	233	4.0	233	4.2
Region VII	21	4.5	209	4.6	209	4.2	209	4.4
Kentucky Average	2074	4.5	2061	4.7	2048	4.4	2046	4.5
National Average		4.7		4.7		4.7		4.7

*proficiency level attained

Note that the Comprehensive Tests of Basic Skills grade equivalent norm is 4.7 for all mathematics subtests. The Kentucky Pilot Study sample of fourth graders yielded a 4.5 grade equivalent score, thus indicating a need in computation and applications. Notice a need was not identified State-wide for mathematical concepts. According to the data displayed in Table 9, Regions that failed to exhibit the proficiency level of 4.7 were:

1. Computation--Regions I, II, IV, V, VI and VII
2. Concepts--Regions IV, V, VI, and VII
3. Applications--Regions I, II, IV, V, VI, and VII
4. Composite--Regions I, II, IV, V, VI, and VII

A total sample item analysis identified the following items where more than 50% of the students failed to meet the expected proficiency level:

CTBS--Mathematical Computations Test

Items: None

CTBS--Mathematical Concepts Test

Items: 11, 12, 28, 30

CTBS--Mathematical Applications Test

Items: 44, 47, 49, 50

An item analysis by region identified the following items where more than 50% of the students failed to meet the expected proficiency level:

Mathematical Computation Test

Region I: None

Region II: None

Region III: None

Region IV: None

Region V: None

Region VI: 28, 29

Region VII: None

Mathematical Concepts Test

Region I: 30

Region II: 6, 11, 12, 27, 28, 30

Region III: 30

Region IV: 11, 12, 16, 27, 28, 30

Region V: 11, 12, 30

Region VI: 6, 8, 11, 12, 15, 16, 17, 18, 21, 22, 23, 24, 25, 26, 27, 28, 30

Region VII: 11, 12, 30

Mathematical Applications Test

Region I: 44, 47, 49, 50

Region II: 44, 47, 49, 50

Region III: None

Region IV: 43, 44, 46, 47, 48, 49, 50

Region V: 47, 49, 50

Region VI: 40, 42, 43, 44, 45, 46, 47, 48, 49, 50

Region VII: 44, 47, 49, 50

TABLE 10

COMPREHENSIVE TESTS OF BASIC SKILLS MATHEMATICS
SCORES BY SEX
Grade 4

	N	Computation	N	Concepts	N	Applications	N	Composite
Boys	1027	4.4	1019	4.8*	1015	4.4	1015	4.5
Girls	1010	4.6	1005	4.7*	996	4.4	994	4.6
Kentucky Average	1037	4.5	1024	4.7	2011	4.4	2009	4.5
National Average		4.7		4.7		4.7		4.7

*proficiency level attained

Table 10 displays mathematical scores by boys and girls. The boys' and girls' scores indicate a need in computation and applications.

TABLE 11

COMPREHENSIVE TESTS OF BASIC SKILLS MATHEMATICS SCORES ACCORDING TO ADJUSTED GROSS INCOME PER PUPIL
Grade 4

	N	Computation	N	Concepts	N	Applications	N	Composite
Above Median	1319	4.5	1311	4.8*	1299	4.5	1298	4.6
Below Median	755	4.5	750	4.5	749	4.2	748	4.4
Kentucky Average	2074	4.5	2061	4.7	2048	4.4	2046	4.5
National Average		4.7		4.7		4.7		4.7

*proficiency level attained

The data displayed in Table 11 indicate the above median group have needs in computation and applications, while the below median group displayed needs in all mathematical areas.

TABLE 12

COMPREHENSIVE TESTS OF BASIC SKILLS MATHEMATICS SCORES ACCORDING TO PER-PUPIL EXPENDITURE
Grade 4

	N	Computation	N	Concepts	N	Applications	N	Composite
Above Median	1303	4.5	1294	4.9*	1281	4.5	1279	4.6
Below Median	771	4.4	767	4.5	767	4.2	767	4.4
Kentucky Average	2074	4.5	2061	4.7	2048	4.4	2046	4.5
National Average		4.7		4.7		4.7		4.7

*proficiency level attained

The data presented in Table 12 indicate a need in mathematics by both above median (4.6) and below median (4.4) student scores, although above median student scores met the proficiency level in concepts (4.9) note that in all instances the above median scores were greater.

TABLE 13

COMPREHENSIVE TESTS OF BASIC SKILLS MATHEMATICS
BY CATEGORIES OF ADJUSTED GROSS INCOME PER
PUPIL AND PER-PUPIL EXPENDITURE
Grade 4

	N	Computation	N	Concepts	N	Applications	N	Composite
A	1069	4.5	1061	4.9*	1049	4.6	1048	4.6
B	250	4.4	250	4.6	250	4.3	250	4.4
C	234	4.5	233	4.7*	232	4.3	231	4.5
D	521	4.5	517	4.4	517	4.2	517	4.4
Kentucky Average	2074	4.5	2061	4.7	2048	4.4	2046	4.5
National Average		4.7		4.7		4.7		4.7

*proficiency level attained

A: Above Median Adjusted Gross Income--Above Median Per Pupil Expenditure
B: Above Median Adjusted Gross Income--Below Median Per Pupil Expenditure
C: Below Median Adjusted Gross Income--Above Median Per Pupil Expenditure
D: Below Median Adjusted Gross Income--Below Median Per Pupil Expenditure

Table 13 indicates a need in mathematics by category for:

1. Computation--all categories
2. Concepts--categories B and D
3. Applications--all categories

Learner Affective Needs

Objective #3

Fourth grade students will respond positively toward self, school, peers, math, reading as measured by the Kentucky Student Attitude Inventory.

TABLE 14

GRADE FOUR AFFECTIVE RESPONSE MEAN SCORES

Region	N	Toward Self	Toward Peers	Toward Reading	Toward Math	Toward School	Total Response
I	226	3.9	5.0	3.8	3.4*	6.0	22.1
II	269	3.9	4.9	4.1	3.6	5.7	22.2
III	417	3.7	4.9	3.7	3.5	5.6	21.4
IV	534	3.7	4.8	3.9	3.7	5.6	21.7
V	179	4.1	5.2	4.1	3.6	5.9	19.3
VI	276	3.6	5.0	4.0	3.8	5.7	22.1
VII	243	4.0	5.1	3.8	3.7	5.5	22.1
Kentucky Mean Score		3.8	5.0	3.9	3.6	5.7	22.0

*need identified

Possible score for each category = 7
Total possible score = 35

The expected proficiency level of positive response was a score of 3.5 or more. No State-wide needs were identified for the total sample of fourth grade students. According to Table 14, the following regional need was identified:

Region I--response toward mathematics

TABLE 15

GRADE FOUR AFFECTIVE RESPONSE MEAN SCORES FOR BOYS AND GIRLS

	N	Toward Self	Toward Peers	Toward Reading	Toward Math	Toward School	Total Response
Boys	1043	3.9	4.9	3.6	3.5	5.4	21.3
Girls	1053	3.8	5.0	4.2	3.7	6.0	22.7
Kentucky Mean Score		3.8	5.0	3.9	3.6	5.7	22.0

Possible score for each category = 7
Total possible score = 35

No needs were identified according to boy-girl variables.

TABLE 16

GRADE FOUR AFFECTIVE RESPONSE MEAN SCORES FOR ADJUSTED GROSS INCOME PER STUDENT

	N	Toward Self	Toward Peers	Toward Reading	Toward Math	Toward School	Total Response
Above Median	1358	3.8	4.9	3.8	3.6	5.7	21.8
Below Median	759	3.8	5.1	4.0	3.8	5.7	22.4
Kentucky Mean Score		3.8	5.0	3.9	3.6	5.7	22.0

Possible score for each category = 7
Total possible score = 35

No fourth grade student needs were identified according to the above and below adjusted gross income per pupil variable. Note that, in most instances, below median student responses were more positive.

TABLE 17

GRADE FOUR AFFECTIVE RESPONSE MEAN SCORES
FOR PER-PUPIL EXPENDITURE

	N	Toward Self	Toward Peers	Toward Reading	Toward Math	Toward School	Total Response
Above Median	1303	3.8	4.9	3.8	3.6	5 7	21.8
Below Median	707	3.8	5.2	4.1	3.7	5.7	22.5
Kentucky Mean Score		3.8	5.0	3.9	3.6	5.7	22.0

Possible score for each category = 7
Total possible score = 35

No fourth grade student needs were identified according to the above and below median per pupil expenditures variable. Note that, in most instances, the below median student responses were more positive.

TABLE 18

GRADE FOUR AFFECTIVE RESPONSE MEAN SCORES BY CATEGORIES OF ADJUSTED GROSS INCOME PER PUPIL AND PER-PUPIL EXPENDITURE

Category	N	Toward Self	Toward Peers	Toward Reading	Toward Math	Toward School	Total Response
A	1068	3.8	4.9	3.8	3.6	5.8	21.9
B	258	3.9	5.2	4.0	3.8	5.7	22.6
C	266	3.8	5.0	3.8	3.8	5.5	21.9
D	555	3.8	5.1	4.0	3.7	5.7	22.3
Kentucky Mean Score		3.8	5.0	3.9	3.6	5.7	22.0

Possible score for each category = 7
Total possible score = 35

A: Above Median Adjusted Gross Income Per Pupil--Above Median Per Pupil Expenditure
B: Above Median Adjusted Gross Income Per Pupil--Below Median Per Pupil Expenditure
C: Below Median Adjusted Gross Income Per Pupil--Above Median Per Pupil Expenditure
D: Below Median Adjusted Gross Income Per Pupil--Below Median Per Pupil Expenditure

Note that category B yielded the most positive student responses.

Learner Psychomotor Needs

Objective #4

Fourth grade students will demonstrate precision according to AAHPER satisfactory scores on selected psychomotor skills as measured by the AAHPER Physical Fitness Test.

TABLE 19

GRADE FOUR BOYS AAHPER PHYSICAL FITNESS TEST RESULTS

Region	N	Pull-Ups No.	Sit-Ups No.	Shuttle Run Seconds	Broad Jump Ft.	Broad Jump In.	50-Yard Dash Seconds	Softball Throw Feet	600-Yard Walk Min.	600-Yard Walk Sec.
I	56	2.8	47.2	12.0	4	8	8.5	84.9	3	10
II	52	3.2*	69.6*	12.2	4	11	9.8	77.9	2	46
III	42	2.0	43.8	12.1	4	8	8.5	89.5	2	53
IV	226	2.9	50.0*	12.0	4	6	8.8	85.5	2	47
V	73	1.8	55.7*	12.5	4	5	9.0	81.6	2	52
VI	95	2.6	48.2	12.3	4	6	9.7	87 2	2	46
VII	62	2.7	45.1	11.5	4	9	8.6	88.2	2	52
AAHPER Satisfactory Score		3	50	11.0	5	2	8.0	102	2	26
Kentucky Mean		2.6	50.9	12.0	4	7	9.0	85	2	51

*satisfactory level attained

All scores displayed are dominant age scores (ten years) in order to utilize the AAHPER norms. The Kentucky mean includes all boys tested in the fourth grade. Utilizing the AAHPER satisfactory score for fourth grade boys, the following State-wide needs were identified:

1. Pull-ups
2. Shuttle Run
3. Broad Jump
4. 50-Yard Dash
5. Softball Throw
6. 600-Yard Walk

Regional fourth grade boy needs identified were:

1. Pull-ups--Regions I, III, IV, V, VI, and VII
2. Sit-ups--Regions I, III, VI, and VII
3. Shuttle Run--all Regions
4. Broad Jump--all Regions
5. 50-Yard Dash--all Regions
6. Softball Throw--all Regions
7. 600-Yard Walk--all Regions

TABLE 20

GRADE FOUR GIRLS AAHPER PHYSICAL FITNESS TEST RESULTS

Region	N	Flexed Arm Hang	Sit-Ups	Shuttle Run	Broad Jump	50-Yard Dash	Softball Throw	600-Yard Walk
		Seconds	No.	Seconds	Ft. In.	Seconds	Feet	Min. Sec.
I	57	10.9	36.6	12.0	4 7	8.7	47.7	3 19
II	58	9.7*	55.4*	12.4	4 4	11.1	47.4	3 15
III	33	4.9*	25.6	12.9	4 3	8.6	49.4	3 27
IV	197	9.7*	32.4	12.7	4 1	9.0	46.3	3 9
V	74	6.6*	41.2*	13.1	4 1	9.5	45.2	3 1
VI	103	8.2*	32.7	13.4	4 1	9.4	44.6	3 13
VII	73	17.2	32.2	12.1	4 4	9.0	55.4*	3 18
AAHPER Satisfactory Score		10.0	39	11.5	4 10	8.2	54	2 41
Kentucky Mean		9.8	35.8	12.7	4 3	9.3	47.5	3 12

*satisfactory level attained

All scores displayed are dominant age scores (ten years) in order to utilize the AAHPER norms. The Kentucky mean includes all girls tested in fourth grade. Utilizing the AAHPER satisfactory score for fourth grade girls, the following State-wide needs were identified:

1. Sit-ups
2. Shuttle Run
3. Broad Jump
4. 50-Yard Dash
5. Softball Throw
6. 600-Yard Walk

Regional fourth grade girl needs identified were:

1. Flexed Arm Hang--Regions I and VII
2. Sit-ups--Regions I, III, IV, VI, and VII
3. Shuttle Run--all Regions
4. Broad Jump--all Regions
5. 50-Yard Dash--all Regions
6. Softball Throw--Regions I, II, III, IV, V, and VI
7. 600-Yard Walk--all Regions

TABLE 21

GRADE FOUR BOYS AAHPER PHYSICAL FITNESS TEST
RESULTS OF ABOVE AND BELOW MEDIAN
ADJUSTED GROSS INCOME PER PUPIL

Region	N	Sit-ups No.	Pull-ups No.	Shuttle Run Seconds	Broad Jump Ft. In.	50-Yard Dash Seconds	Softball Throw Feet	600-Yard Walk Min. Sec.
Above Median	262	2.9	49.1	11.9	4 7	8.9	87.5	2 54
Below Median	316	2.1	54.3*	12.3	4 7	9.2	81.4	2 46
AAHPER Satisfactory Score		3	50	11.0	5 2	8.0	102	2 26
Kentucky Mean		2.6	50.9	12.0	4 7	9.0	85	2 51

*satisfactory level attained

State-wide needs were identified in the following activities for fourth grade boys in relation to the adjusted gross income per pupil variable:

Above Median	Below Median
Pull-ups	Pull-ups
Sit-ups	Shuttle Run
Shuttle Run	Broad Jump
Broad Jump	50-Yard Dash
50-Yard Dash	Softball Throw
Softball Throw	600-Yard Walk
600-Yard Walk	

TABLE 22

GRADE FOUR GIRLS AAHPER PHYSICAL FITNESS TEST
RESULTS OF ABOVE AND BELOW MEDIAN
ADJUSTED GROSS INCOME PER PUPIL

	N	Flexed Arm Hang Seconds	Sit-ups No.	Shuttle Run Seconds	Broad Jump Ft.	Broad Jump In.	50-Yard Dash Seconds	Softball Throw Feet	600-Yard Walk Min.	600-Yard Walk Sec.
Above Median	370	10.1	36.2	12.5	4	3	8.9	49.4	3	17
Below Median	239	9.5*	34.6	13.0	4	2	9.8	44.6	3	7
AAHPER Satisfactory Score		10.0	39	11.5	4	10	8.2	54	2	41
Kentucky Mean		9.8	35.8	12.7	4	3	9.3	47.5	3	12

*satisfactory level attained

State-wide needs were identified in the following activities for fourth grade girls in relation to the adjusted gross income per pupil variable:

Above Median	Below Median
Flexed Arm Hang	Sit-ups
Sit-ups	Shuttle Run
Shuttle Run	Broad Jump
Broad Jump	50-Yard Dash
50-Yard Dash	Softball Throw
Softball Throw	600-Yard Walk
600-Yard Walk	

TABLE 23

GRADE FOUR BOYS AAHPER PHYSICAL FITNESS TEST
RESULTS OF ABOVE AND BELOW MEDIAN
PER PUPIL EXPENDITURE

	N	Pull-ups No.	Sit-ups No.	Shuttle Run Seconds	Broad Jump Ft. In.	50-Yard Dash Seconds	Softball Throw Feet	600-Yard Walk Min. Sec.
Above Median	262	3.0*	53.7*	12.0	4 6	8.8	84.0	2 51
Below Median	316	2.4	48.5	12.0	4 7	9.1	87.0	2 55
AAHPER Satisfactory Score		3	50	11.0	5 2	8.0	102	2 26
Kentucky Mean		2.6	50.9	12.0	4 7	9.0	85	2 51

*satisfactory level attained

State-wide needs were identified in the following activities for fourth grade boys in relation to the per pupil expenditure variable:

Above Median	Below Median
Shuttle Run	Pull-ups
Broad Jump	Sit-ups
50-Yard Dash	Shuttle Run
Softball Throw	Broad Jump
600-Yard Walk	Softball Throw
	50-Yard Dash
	600-Yard Walk

TABLE 24

GRADE FOUR GIRLS AAHPER PHYSICAL FITNESS TEST
RESULTS OF ABOVE AND BELOW MEDIAN
PER-PUPIL EXPENDITURE

	N	Flexed Arm Hang Seconds	Sit-ups No.	Shuttle Run Seconds	Broad Jump Ft.	Broad Jump In.	50-Yard Dash Seconds	Softball Throw Feet	600-Yard Walk Min.	600-Yard Walk Sec.
Above Median	225	9.6*	39.5*	12.8	4	1	9.1	45.7	3	10
Below Median	330	9.7*	32.0	12.6	4	2	9.5	48.9	3	14
AAHPER Satisfactory Score		10.0	39	11.5	4	10	8.2	54	2	41
Kentucky Mean		9.8	35.8	12.7	4	3	9.3	47.5	3	12

*satisfactory level attained

State-wide needs were identified in the following activities for fourth grade girls in relation to the per pupil expenditure variable:

Above Median	Below Median
Shuttle Run	Sit-ups
Broad Jump	Shuttle Run
50-Yard Dash	Broad Jump
Softball Throw	50-Yard Dash
600-Yard Walk	Softball Throw
	600-Yard Walk

TABLE 25

GRADE FOUR BOYS AAHPER PHYSICAL FITNESS TEST RESULTS BY CATEGORIES OF ADJUSTED GROSS INCOME PER PUPIL AND PER-PUPIL EXPENDITURE

Category	N	Pull-ups	Sit-ups	Shuttle Run	Broad Jump		50-Yard Dash	Softball Throw	600-Yard Walk	
		No.	No.	Seconds	Ft.	In.	Seconds	Feet	Min.	Sec.
A	202	3.2*	55.9*	12.0	4	6	8.7	85.4	2	52
B	144	2.5	38.8	11.8	4	7	9.7	90.8	2	55
C	49	1.9	46.9	12.1	4	6	9.4	73.6	2	42
D	190	2.2	56.2*	12.3	4	7	9.1	83.5	2	47
AAHPER Satisfactory Score		3	50	11.0	5	2	8.0	102	2	26
Kentucky Mean		2.6	50.9	12.0	4	7	9.0	85	2	51

*satisfactory level attained

A: Above Median Adjusted Gross Income Per Pupil--Above Median Per Pupil Expenditure
B: Above Median Adjusted Gross Income Per Pupil--Below Median Per Pupil Expenditure
C: Below Median Adjusted Gross Income Per Pupil--Above Median Per Pupil Expenditure
D: Below Median Adjusted Gross Income Per Pupil--Below Median Per Pupil Expenditure

The following State-wide needs for fourth grade boys were identified by category:

1. Pull-ups--Categories B, C, and D
2. Sit-ups--Categories B and C
3. Shuttle Run--all categories
4. Broad Jump--all categories

5. 50-Yard Dash--all categories

6. Softball Throw--all categories

7. 600-Yard Walk--all categories

TABLE 26

GRADE FOUR GIRLS AAHPER PHYSICAL FITNESS TEST RESULTS BY CATEGORIES OF ADJUSTED GROSS INCOME PER PUPIL AND PER PUPIL EXPENDITURE

Category	N	Flexed Arm Hang Seconds	Sit-ups No.	Shuttle Run Seconds	Broad Jump Ft.	Broad Jump In.	50-Yard Dash Seconds	Softball Throw Feet	600-Yard Walk Min.	600-Yard Walk Sec.
A	195	9.5*	41.8*	12.7	4	2	8.9	46.9	3	11
B	146	10.8	28.8	12.2	4	4	9.0	53.4	3	2
C	49	11.8	31.6	12.8	4	1	9.8	40.8	3	3
D	203	9.0*	35.3	13.0	4	2	9.8	45.5	3	8
AAHPER Satisfactory Score		10.0	39	11.5	4	10	8.2	54	2	41
Kentucky Mean		9.8	35.8	12.7	4	3	9.3	47.5	3	12

*satisfactory level attained

A: Above Median Adjusted Gross Income Per Pupil--Above Median Per Pupil Expenditure
B: Above Median Adjusted Gross Income Per Pupil--Below Median Per Pupil Expenditure
C: Below Median Adjusted Gross Income Per Pupil--Above Median Per Pupil Expenditure
D: Below Median Adjusted Gross Income Per Pupil--Below Median Per Pupil Expenditure

The following State-wide needs for fourth grade girls were identified by category:

1. Flexed Arm Hang--Categories B and C
2. Sit-ups--Categories, B, C, and D
3. Shuttle Run--all categories
4. Broad Jump--all categories
5. 50-Yard Dash--all categories
6. Softball Throw--all categories
7. 600-Yard Walk--all categories

DATA ANALYSES: GRADE SEVEN

Learner Cognitive Needs

Objective #1

Seventh grade students in reading are expected to score a grade equivalent of 7.7 by displaying ability to:

	Behavior	Concept or Skill	California Achievement Test Measurement
1.	Know	vocabulary	CAT Section 1
2.	Comprehend	words and phrases	CAT Section 2
3.	Comprehend	reading content (sentences, paragraphs, stories)	CAT Section 2

TABLE 27

CALIFORNIA ACHIEVEMENT TEST READING SCORES
Grade 7

Region	N	Vocabulary	N	Comprehension	N	Composite
I	223	7.7*	223	7.9*	223	7.8*
II	276	7.7*	276	7.7*	276	7.7*
III	418	7.6	419	7.7*	418	7.7*
IV	354	6.6	354	6.8	354	6.7
V	175	6.6	175	6.7	175	6.7
VI	296	6.3	296	6.3	296	6.3
VII	264	7.2	264	7.2	264	7.2
Kentucky Average	2006	7.1	2007	7.2	2006	7.2
National Average		7.7		7.7		7.7

*proficiency level attained

Notice that the California Achievement Test grade equivalent norm is 7.7 for all reading subtests. The total Kentucky Pilot Study sample of seventh graders yielded a 7.2 grade equivalent score, thus indicating a need in reading, vocabulary, and comprehension. According to the information displayed in Table 1 Regions that failed to exhibit the proficiency level of 7.7 were:

1. Vocabulary--Regions III, IV, V, VI, and VII
2. Comprehension--Regions IV, V, VI, and VII

A total sample item analysis identified the following items where more than 50% of the students failed to meet the expected proficiency level.

CAT--Reading Vocabulary Test

Items: 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40

CAT--Reading Comprehension Test

Items: 5, 7, 9, 12, 16, 19, 24, 26, 28, 29, 30, 32, 33, 36, 37, 39, 40, 41, 42, 43, 44, 45

An item analysis by Region identified the following items where more than 50% of the students failed to meet the expected proficiency level:

Reading Vocabulary Test

Region I: 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40

Region II: 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40

Region III: 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40

Region IV: 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40

Region V: 14, 22, 23, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40

Region VI: 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40

Region VII: 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40

Reading Comprehension Test

Region I: 5, 7, 9, 12, 16, 19, 26, 29, 30, 32, 33, 36, 37, 39, 40, 41, 42, 43, 44, 45

Region II: 5, 7, 9, 16, 19, 26, 28, 29, 32, 33, 36, 37, 39, 40, 41, 42, 43, 44, 45

Region III: 5, 7, 9, 12, 16, 19, 24, 26, 28, 29, 30, 32, 36, 37, 39, 40, 41, 42, 43, 44, 45

Region IV: 5, 7, 9, 12, 15, 16, 19, 20, 24, 26, 28, 29, 30, 32, 33, 34, 36, 37, 40, 41, 42, 43, 44, 45

Region V: 5, 7, 9, 12, 16, 19, 20, 26, 27, 28, 29, 30, 31, 32, 33, 34, 36, 37, 39, 40, 41, 42, 43, 44, 45

Region VI: 5, 7, 9, 12, 16, 19, 20, 24, 26, 27, 28, 29, 30, 31, 32, 33, 34, 36, 37, 39, 40, 41, 42, 43, 44, 45

Region VII: 5, 7, 11, 16, 19, 20, 24, 26, 28, 29, 30, 32, 33, 36, 37, 39, 40, 41, 42, 43, 44, 45

TABLE 28

CALIFORNIA ACHIEVEMENT TEST READING SCORES BY SEX
Grade 7

	N	Vocab-ulary	N	Compre-hension	N	Com-posite
Boys	839	7.2	840	7.2	839	7.2
Girls	887	7.2	887	7.3	887	7.3
Kentucky Average	1726	7.2	1737	7.2	1726	7.2
National Average		7.7		7.7		7.7

Table 28 displays reading scores by boys and girls. Neither boys (7.2) nor girls (7.3) attained the expected 7.7 grade equivalent score. Therefore, a reading need in vocabulary and comprehension has been identified for seventh grade boys and girls participating in the Pilot Study.

TABLE 29

CALIFORNIA ACHIEVEMENT TEST READING SCORES ACCORDING TO ADJUSTED GROSS INCOME PER PUPIL
Grade 7

	N	Vocab-ulary	N	Compre-hension	N	Com-posite
Above Median	1223	7.3	1224	7.4	1223	7.3
Below Median	783	6.9	783	7.0	783	6.9
Kentucky Average	2006	7.2	2007	7.2	2006	7.2
National Average		7.7		7.7		7.7

The data displayed in Table 29 indicate that, although students' scores from above median adjusted gross income areas (7.3) were greater than the below median student scores (6.9), both groups displayed a need in reading.

TABLE 30

CALIFORNIA ACHIEVEMENT TEST READING SCORES
ACCORDING TO PER-PUPIL EXPENDITURE
Grade 7

	N	Vocab-ulary	N	Compre-hension	N	Com-posite
Above Median	1180	7.3	1181	7.5	1180	7.4
Below Median	826	6.8	826	6.8	826	6.8
Kentucky Average	2006	7.2	2007	7.2	2006	7.2
National Average		7.7		7.7		7.7

The data presented in Table 30 indicate a need in reading by both above (7.4) and below (6.8) median groups. Note that above median scores were greater.

TABLE 31

CALIFORNIA ACHIEVEMENT TEST READING SCORES BY CATEGORIES OF ADJUSTED GROSS INCOME PER PUPIL AND PER-PUPIL EXPENDITURE
Grade 7

Category	N	Vocabulary	N	Comprehension	N	Composite
A	993	7.3	940	7.5	939	7.4
B	284	7.0	284	7.0	284	7.0
C	241	7.4	241	7.5	241	7.4
D	542	6.7	542	6.7	542	6.7
Kentucky Average	2006	7.2	2007	7.2	2006	7.2
National Average		7.7		7.7		7.7

A: Above Median Adjusted Gross Income--Above Per Pupil Expenditure
B: Above Median Adjusted Gross Income--Below Per Pupil Expenditure
C: Below Median Adjusted Gross Income--Above Per Pupil Expenditure
D: Below Median Adjusted Gross Income--Below Per Pupil Expenditure

Table 31 indicates a need in reading for categories A, B, C, and D. Note that categories A and C attained the higher scores (7.4), while category D had the lowest score (6.7).

Objective #2

Seventh grade students in mathematics are expected to score a grade equivalent of 7.7 by displaying ability to:

	Behavior	Concept or Skill	California Achievement Test Measurement
1.	Apply	basic operations of whole numbers (addition, subtraction, multiplication, division)	CAT Section 3, basic operations; Section 6, fractions

2.	Comprehend	units of measurement (money, linear, liquid)	CAT Section 3
3.	Comprehend	numbers and numerals	CAT Section 4
4.	Comprehend	terms and symbols (operations)	CAT Section 4
5.	Comprehend	sets (union, empty, intersection, subsets)	CAT Section 5
6.	Comprehend	graphs and charts	CAT Section 5

TABLE 32

CALIFORNIA ACHIEVEMENT TESTS MATHEMATICS SCORES
Grade 7

Region	N	Mathematical Computation	N	Mathematical Concepts/ Problems	N	Composite
I	223	8.1*	223	7.7*	223	7.9*
II	275	7.6	275	7.6	275	7.6
III	412	7.6	414	7.5	408	7.6
IV	354	6.8	353	6.4	353	6.7
V	175	7.6	175	7.0	175	7.3
VI	296	6.8	296	6.2	296	6.6
VII	263	7.7*	262	7.4	202	7.6
Kentucky Average	1998	7.4	1998	7.1	1992	7.3
National Average		7.7		7.7		7.7

*proficiency level attained

Note that the California Achievement Test grade equivalent norm is 7.7 for all mathematics subtests. The Kentucky Pilot Study sample of seventh graders yielded a 7.3 grade equivalent score, thus indicating a need in computation, concepts, and problem-solving. According to the data displayed in Table 32, Regions that failed to exhibit the proficiency level of 7.7 were:

1. Computation--Regions II, III, IV, V, and VI

2. Concepts/Problems--Regions II, III, IV, V, VI, and VII

A total sample item analysis identified the following items where more than 50% of the students failed to meet the expected proficiency level:

CAT--Mathematical Computations Test

Items: 14, 16, 17, 18, 19, 20, 21, 22, 23, 24, 31, 33, 34, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48

CAT--Mathematical Concepts/Problems

Items: 13, 16, 17, 18, 19, 20, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35

An item analysis by region identified the following items where more than 50% of the students failed to meet the expected proficiency level:

Mathematical Computation

Region I: 12, 14, 16, 17, 18, 19, 22, 23, 24, 33, 36, 37, 38, 39, 42, 43, 44, 45, 46, 47, 48

Region II: 12, 14, 16, 17, 18, 19, 22, 23, 24, 34, 36, 37, 38, 39, 41, 42, 43, 44, 45, 46, 47, 48

Region III: 12, 14, 17, 18, 19, 21, 22, 23, 24, 33, 34, 36, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48

Region IV: 4, 9, 10, 12, 14, 16, 17, 18, 19, 20, 21, 22, 23, 24, 28, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48

Region V: 12, 14, 16, 17, 18, 19, 20, 21, 22, 23, 24, 31, 33, 36, 37, 38, 39, 42, 43, 44, 45, 46, 47, 48

Region VI: 4, 9, 12, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 28, 31, 33, 34, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48

Region VII: 4, 12, 14, 16, 17, 18, 19, 21, 22, 23, 24, 31, 33, 34, 36, 37, 38, 39, 42, 43, 44, 45, 46, 47, 48

Mathematical Concepts/Problems

Region I: 14, 18, 19, 20, 22, 23, 24, 25, 26, 28, 29, 30, 31, 32, 33, 34, 35

Region II: 13, 16, 18, 19, 20, 24, 25, 25, 26, 28, 29, 30, 31, 32, 33, 34, 35

Region III: 16, 17, 18, 19, 20, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35

Region IV: 10, 13, 16, 17, 18, 19, 20, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35

Region V: 10, 16, 17, 18, 19, 20, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35

Region VI: 8, 10, 12, 13, 15, 16, 17, 18, 19, 20, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35

Region VII: 18, 19, 20, 22, 23, 24, 25, 26, 28, 29, 30, 31, 32, 33, 34, 35

TABLE 33

CALIFORNIA ACHIEVEMENT TEST MATHEMATICS SCORES BY SEX
Grade 7

	N	Computation	N	Concepts/ Problems	N	Composite
Boys	838	7.2	834	7.2	833	7.3
Girls	880	7.7*	884	7.1	879	7.4
Kentucky Average	1718	7.4	1718	7.1	1712	7.3
National Average		7.7		7.7		7.7

*proficiency level attained

Table 33 displays mathematics scores by boys and girls. The girls' scores indicate a need in the concepts/problems area while boys indicated a need in all areas.

TABLE 34

CALIFORNIA ACHIEVEMENT TEST MATHEMATICS SCORES
ACCORDING TO ADJUSTED GROSS INCOME PER PUPIL
Grade 7

	N	Computation	N	Concepts/ Problems	N	Composite
Above Median	1215	7.4	1216	7.2	1210	7.4
Below Median	783	7.4	782	6.9	782	7.2
Kentucky Average	1998	7.4	1998	7.1	1992	7.3
National Average		7.7		7.7		7.7

The data displayed in Table 34 indicate that, although student scores from above median adjusted gross income areas (7.4) were greater than the below median student scores (7.2), both groups displayed a need in mathematics.

TABLE 35

CALIFORNIA ACHIEVEMENT TEST MATHEMATICS SCORES
ACCORDING TO PER-PUPIL EXPENDITURE
Grade 7

	N	Computation	N	Concepts/ Problems	N	Composite
Above Median	1173	7.6	1174	7.2	1168	7.4
Below Median	825	7.2	824	6.9	824	7.1
Kentucky Average	1998	7.4	1998	7.1	1992	7.3
National Average		7.7		7.7		7.7

The data presented in Table 35 indicate a need in mathematics by both above (7.4) and below (7.1) median groups. Note that above median scores were greater.

TABLE 36

CALIFORNIA ACHIEVEMENT TEST MATHEMATICS SCORES BY CATEGORIES OF ADJUSTED GROSS INCOME PER PUPIL AND PER-PUPIL EXPENDITURE
Grade 7

Category	N	Computation	N	Concepts/ Problems	N	Composite
A	932	7.4	934	7.2	928	7.4
B	283	7.4	283	7.2	282	7.3
C	241	8.0*	240	7.4	240	7.7*
D	542	7.2	542	6.7	542	7.0
Kentucky Average	1998	7.4	1998	7.1	1992	7.3
National Average		7.7		7.7		7.7

*proficiency level attained

A: Above Median Adjusted Gross Income--Above Per Pupil Expenditure
B: Above Median Adjusted Gross Income--Below Per Pupil Expenditure
C: Below Median Adjusted Gross Income--Above Per Pupil Expenditure
D: Below Median Adjusted Gross Income--Below Per Pupil Expenditure

Table 36 indicates a need in mathematics for categories A, B, and D.

Learner Affective Needs

Objective #3

Seventh grade students will respond positively toward self, school, peers, math, reading as measured by the Kentucky Student Attitude Inventory.

TABLE 37

GRADE SEVEN AFFECTIVE RESPONSE MEAN SCORES

Region	N	Toward Self	Toward Peers	Toward Reading	Toward Math	Toward School	Total Response
I	252	14.9	16.5	13.7	12.0	16.0	73.1
II	238	15.0	16.1	13.7	12.8	15.3	72.9
III	408	14.3	15.5	12.8	11.7*	15.3	69.6
IV	360	14.4	15.4	13.2	13.3	14.9	71.2
V	172	14.6	16.3	13.2	13.7	14.4	72.2
VI	274	15.2	16.4	14.7	14.4	16.1	76.8
VII	263	14.6	16.2	13.4	13.5	15.2	72.9
Kentucky Mean Score		14.6	15.9	13.4	12.8	15.2	71.9

*identified need

Possible score for each category = 24
Total possible score = 120

The expected proficiency level of positive response was a score of twelve or more. No State-wide needs were identified for the total sample of seventh grade students. According to Table 37, the following regional need was identified:

Region III--response toward mathematics

TABLE 38

GRADE SEVEN AFFECTIVE RESPONSE MEAN SCORES FOR BOYS AND GIRLS

	N	Toward Self	Toward Peers	Toward Reading	Toward Math	Toward School	Total Response
Boys	937	14.5	15.8	12.6	13.0	14.8	70.7
Girls	1022	14.7	16.0	14.0	12.7	15.6	73.0
Kentucky Mean Score		14.6	15.9	13.4	12.8	15.2	71.9

Possible score for each category = 24
Total possible score = 120

No needs were identified according to boy-girl variable. Note that boys responded to mathematics more positively than girls.

TABLE 39

GRADE SEVEN AFFECTIVE RESPONSE MEAN SCORES FOR ADJUSTED GROSS INCOME PER STUDENT

	N	Toward Self	Toward Peers	Toward Reading	Toward Math	Toward School	Total Response
Above Median	1244	14.5	15.7	13.2	12.8	15.2	71.4
Below Median	674	14.7	16.2	13.7	13.2	15.1	72.9
Kentucky Mean Score		14.6	15.9	13.4	12.8	15.2	71.9

Possible score for each category = 24
Total possible score = 120

No seventh grade student needs were identified according to the above and below adjusted gross income per student variable. Note that in most instances, below median adjusted gross income student responses were more positive.

TABLE 40

GRADE SEVEN AFFECTIVE RESPONSE MEAN SCORES FOR PER PUPIL EXPENDITURE

	N	Toward Self	Toward Peers	Toward Reading	Toward Math	Toward School	Total Response
Above Median	1138	14.6	15.8	13.4	12.6	15.3	71.7
Below Median	707	14.5	16.0	13.3	13.2	14.9	71.9
Kentucky Mean Score		14.6	15.9	13.4	12.8	15.2	71.9

Possible score for each category = 24
Total possible score = 120

No seventh grade student needs were identified according to the above and below median per pupil expenditure variable.

TABLE 41

AFFECTIVE RESPONSE MEAN SCORES BY CATEGORIES OF ADJUSTED GROSS INCOME PER PUPIL AND PER-PUPIL EXPENDITURE
Grade 7

Category	N	Toward Self	Toward Peers	Toward Reading	Toward Math	Toward School	Total Response
A	935	14.5	15.6	13.2	12.6	15.2	71.1
B	303	14.5	16.0	13.3	13.5	15.4	72.7
C	238	15.2	16.6	14.1	13.2	15.8	74.9
D	442	14.5	16.0	13.4	13.2	14.7	71.8
Kentucky Mean Score		14.6	15.9	13.4	12.8	15.2	71.9

Possible score for each category = 8
Total possible score = 40

A: Above Median Adjusted Gross Income Per Pupil--Above Median Per Pupil Expenditure
B: Above Median Adjusted Gross Income Per Pupil--Below Median Per Pupil Expenditure
C: Below Median Adjusted Gross Income Per Pupil--Above Median Per Pupil Expenditure
D: Below Median Adjusted Gross Income Per Pupil--Below Median Per Pupil Expenditure

No seventh grade student needs were identified by categories A, B, C, and D. Note that category C student responses yielded the most positive student response.

Learner Psychomotor Needs

Objective #4

Seventh grade students will demonstrate precision according to AAHPER satisfactory scores on selected psychomotor skills as measured by the AAHPER Physical Fitness Test.

TABLE 42

GRADE SEVEN BOYS AAHPER PHYSICAL FITNESS TEST RESULTS

Region	N	Pull-ups	Sit-ups	Shuttle Run	Broad Jump		50-Yard Dash	Softball Throw	600-Yard Walk	
		No.	No.	Seconds	Ft.	In.	Seconds	Feet	Min.	Sec.
I	33	2.6	52.3	10.9	6	0*	7.1*	83.5	2	17
II	47	3.6*	102.5*	10.6*	5	5	7.7	119.8	2	20
III	25	4.2*	68.1*	10.6*	5	9*	7.7	125.7	2	24
IV	159	4.1*	61.8*	10.6*	5	5	7.9	11[illegible].6	2	23
V	61	3.3*	62.7*	11.5	5	4	8.6	118.2	2	25
VI	79	2.6	54.8	11.1	5	7	8.0	128.3	2	6*
VII	86	3.4*	85.1*	10.8	5	7	8.0	119.6	2	38
AAHPER Satisfactory Score		3	59	10.7	5	8	7.6	129	2	15
Kentucky Mean		3.5	68.4	10.8	5	6	7.9	116.4	2	26

*satisfactory level attained

All scores displayed are dominant age scores (12 years), in order to utilize the AAHPER norms. The Kentucky mean includes all boys tested in the seventh grade. Utilizing the AAHPER satisfactory score for seventh grade boys, the following State-wide needs were identified:

1. Shuttle Run
2. Softball Throw
3. 600-Yard Walk

Regional seventh grade boy needs identified were:

1. Pull-ups--Regions I and VI
2. Sit-ups--Regions I and VI
3. Shuttle Run--Regions I, V, VI, and VII
4. Broad Jump--Regions II, IV, V, VI, and VII
5. 50-Yard Dash--Regions II, III, IV, V, VI, and VII
6. Softball Throw--all Regions
7. 600-Yard Walk--Regions I, II, III, IV, V, and VII

TABLE 43

GRADE SEVEN GIRLS AAHPER PHYSICAL FITNESS TEST RESULTS

Region	N	Flexed Arm Hang Seconds	Sit-ups No.	Shuttle Run Seconds	Broad Jump Ft.	Broad Jump In.	50-Yard Dash Seconds	Softball Throw Feet	600-Yard Walk Min.	600-Yard Walk Sec.
I	45	6.9*	29.1	11.6	5	3*	7.7*	80.4*	3	13
II	53	11.9	48.6*	11.4	4	9	8.0*	65.6	2	51
III	22	8.5	37.9	11.1*	5	1	8.2	73.0*	2	54
IV	163	10.4	33,5	11.4	4	11	8.2	66.8	2	57
V	76	6.0*	44.0*	12.5	4	7	8.8	66.2	2	51
VI	75	8.3	30.6	11.8	5	2	8.5	71.4*	2	55
VII	74	11.6	48.5*	11.4	5	0	8.4	67.3	2	13*
AAHPER Satisfactory Score		8.0	39	11.3	5	2	8.0	70	2	42
Kentucky Mean		9.3	38.1	11.6	4	11	8.3	68.8	2	58

*satisfactory level attained

All scores displayed are dominant age scores (twelve years) in order to utilize the AAHPER norms. The Kentucky mean includes all girls tested in the seventh grade. Utilizing the AAHPER satisfactory score for seventh grade girls, the following State-wide needs were identified:

1. Flexed Arm Hang
2. Sit-ups
3. Shuttle Run
4. Broad Jump
5. 50-Yard Dash
6. Softball Throw
7. 600-Yard Walk

Regional seventh grade girl needs identified were:

1. Flexed Arm Hang--Regions II, III, IV, VI, and VII
2. Sit-ups--Regions I, III, IV, and VI
3. Shuttle Run--Regions I, II, IV, V, VI, and VII
4. Broad Jump--Regions I and VII
5. 50-Yard Dash--Regions III, IV, V, VI, and VII
6. Softball Throw--Regions II, IV, V, and VII
7. 600-Yard Walk--Regions I, II, III, IV, V, and VI

TABLE 44

GRADE SEVEN BOYS AAHPER PHYSICAL FITNESS TEST RESULTS OF ABOVE AND BELOW MEDIAN ADJUSTED GROSS INCOME PER PUPIL

	N	Pull-ups No.	Sit-ups No.	Shuttle Run Seconds	Broad Jump Ft. In.	50-Yard Dash Seconds	Softball Throw Feet	600-Yard Walk Min. Sec.
Above Median	274	3.2*	72.5*	10.6*	5 6	7.8	119.0	2 29
Below Median	216	3.9*	63.0*	11.1	5 6	8.0	113.3	2 23
AAHPER Satisfactory Score		3	59	10.7	5 8	..6	129	2 15
Kentucky Mean		3.5	68.4	10.8	5 6	7.9	116.4	2 26

*satisfactory level attained

State-wide needs were identified in the following activities for seventh grade boys in relation to the adjusted gross income per pupil variable:

Above Median	Below Median
Broad Jump	Shuttle Run
50-Yard Dash	Broad Jump
Softball Throw	50-Yard Dash
600-Yard Walk	Softball Throw
	600-Yard Walk

TABLE 45

GRADE SEVEN GIRLS AAHPER PHYSICAL FITNESS TEST RESULTS OF ABOVE AND BELOW MEDIAN ADJUSTED GROSS INCOME PER PUPIL

	N	Flexed Arm Hang	Sit-ups	Shuttle Run	Broad Jump	50-Yard Dash	Softball Throw	600-Yard Walk
		Seconds	No.	Seconds	Ft. In.	Seconds	Feet	Min. Sec.
Above Median	270	9.0	36.7	11.4	4 11	8.3	69.7	3 4
Below Median	238	9.7	39.8*	11.9	4 11	8.3	67.8	2 52
AAHPER Satisfactory Score		8.0	39	11.3	5 12	8.0	70	2 42
Kentucky Mean		9.8	35.8	12.7	4 3	9.3	47.5	3 12

*satisfactory level attained

State-wide needs were identified in the following activities for seventh grade girls in relation to the adjusted gross income per pupil variable:

Above Median	Below Median
Flexed Arm Hang	Flexed Arm Hang
Sit-ups	Shuttle Run
Shuttle Run	Broad Jump
Broad Jump	50-Yard Dash
50-Yard Dash	Softball Throw
Softball Throw	600-Yard Walk
600-Yard Walk	

TABLE 46

GRADE SEVEN BOYS AAHPER PHYSICAL FITNESS TEST RESULTS OF ABOVE AND BELOW MEDIAN PER PUPIL EXPENDITURE

	N	Pull-ups No.	Sit-ups No.	Shuttle Run Seconds	Broad Jump Ft.	Broad Jump In.	50-Yard Dash Seconds	Softball Throw Feet	600-Yard Walk Min.	600-Yard Walk Sec.
Above Median	211	4.2*	70.7*	10.6*	5	5	7.9	116.5	2	23
Below Median	262	2.9	65.2*	11.0	5	7	7.9	115.6	2	28
AAHPER Satisfactory Score		3	59	10.7	5	8	7.6	129	2	15
Kentucky Mean		3.5	68.4	10.8	5	6	7.9	116.4	2	26

*satisfactory level attained

State-wide needs were identified in the following activities for seventh grade boys in relation to the per pupil expenditure variable:

Above Median	Below Median
Broad Jump	Pull-ups
50-Yard Dash	Shuttle Run
Softball Throw	Broad Jump
600-Yard Walk	50-Yard Dash
	Softball Throw
	600-Yard Walk

TABLE 47

GRADE SEVEN GIRLS AAHPER PHYSICAL FITNESS TEST RESULTS OF ABOVE AND BELOW MEDIAN PER PUPIL EXPENDITURE

		Flexed Arm Hang	Sit-ups	Shuttle Run	Broad Jump		50-Yard Dash	Softball Throw	600-Yard Walk	
		Seconds	No.	Seconds	Ft.	In.	Seconds	Feet	Min.	Sec.
Above Median	221	10.7	36.3	11.4	4	11	8.3	67.5	2	54
Below Median	269	7.8*	38.2	11.8	4	11	8.4	70.5*	3	3
AAHPER Satisfactory Score		8.0	39	11.3	5	2	8.0	70	2	42
Kentucky Mean		9.8	38.8	12.7	4	3	9.3	47.5	3	12

*satisfactory level attained

State-wide needs were identified in the following activities for seventh grade girls in relation to the per pupil expenditure variable:

Above Median	Below Median
Flexed Arm Hang	Sit-ups
Sit-ups	Shuttle Run
Shuttle Run	Broad Jump
Broad Jump	50-Yard Dash
50-Yard Dash	600-Yard Walk
600-Yard Walk	

TABLE 48

GRADE SEVEN BOYS AAHPER PHYSICAL FITNESS TEST RESULTS BY CATEGORIES OF ADJUSTED GROSS INCOME PER PUPIL AND PER PUPIL EXPENDITURE

Category	N	Pull-ups	Sit-ups	Shuttle Run	Broad Jump		50-Yard Dash	Softball Throw	600-Yard Walk	
		No.	No.	Seconds	Ft.	In.	Seconds	Feet	Min.	Sec.
A	167	3.3*	71.8*	10.4*	5	5	7.8	118.2	2	24
B	108	3.0*	73.5*	10.8	5	8*	7.8	122.2	2	35
C	62	6.4*	72.3*	11.0	5	8*	8.0	117.2	2	20
D	154	2.8	59.3*	11.2	5	5	8.0	111.7	2	25
AAHPER Satisfactory Score		3	59	10.7	5	8	7.6	129	2	15
Kentucky Mean		3.5	68.4	10.8	5	6	7.9	116.4	2	26

*satisfactory level attained

A: Above Median Adjusted Gross Income Per Pupil--Above Median Per Pupil Expenditure
B: Above Median Adjusted Gross Income Per Pupil--Below Median Per Pupil Expenditure
C: Below Median Adjusted Gross Income Per Pupil--Above Median Per Pupil Expenditure
D: Below Median Adjusted Gross Income Per Pupil--Below Median Per Pupil Expenditure

The following State-wide needs for seventh grade boys were identified by category:

1. Pull-ups--category D
2. Shuttle Run--categories B, C, and D
3. Broad Jump--categories A and D
4. 50-Yard Dash--all categories
5. Softball Throw--all categories
6. 600-Yard Walk--all categories

TABLE 49

GRADE SEVEN GIRLS AAHPER PHYSICAL FITNESS TEST RESULTS BY CATEGORIES OF ADJUSTED GROSS INCOME PER PUPIL AND PER PUPIL EXPENDITURE

Category	N	Flexed Arm Hang	Sit-ups	Shuttle Run	Broad Jump		50-Yard Dash	Softball Throw	600-Yard Walk	
		Seconds	No.	Seconds	Ft.	In.	Seconds	Feet	Min.	Sec.
A	170	10.1	36.7	11.3*	5	0	8.2	68.3	2	55
B	100	7.3*	36.6	11.5	5	0	8.4	72.3*	3	19
C	69	13.3	41.4*	11.7	5	1	8.3	63.5	2	50
D	168	8.2	39.2*	12.0	4	10	8.4	69.6	2	58
AAHPER Satisfactory Score		8.0	39	11.3	5	2	8.0	70	2	42
Kentucky Mean		9.3	38.1	11.6	4	11	8.3	68.8	2	58

*satisfactory level attained

A: Above Median Adjusted Gross Income Per Pupil--Above Median Per Pupil Expenditure
B: Above Median Adjusted Gross Income Per Pupil--Below Median Per Pupil Expenditure
C: Below Median Adjusted Gross Income Per Pupil--Above Median Per Pupil Expenditure
D: Below Median Adjusted Gross Income Per Pupil--Below Median Per Pupil Expenditure

The following State-wide needs for seventh grade girls were identified by category:

1. Flexed Arm Hang--categories A, C, and D
2. Sit-ups--categories A and B
3. Shuttle Run--categories B, C, and D
4. Broad Jump--all categories

5. 50-Yard Dash--all categories

6. Softball Throw--categories A, C, and D

7. 600-Yard Walk--all categories

DATA ANALYSES: GRADE ELEVEN

Learner Cognitive Needs

Objective #1

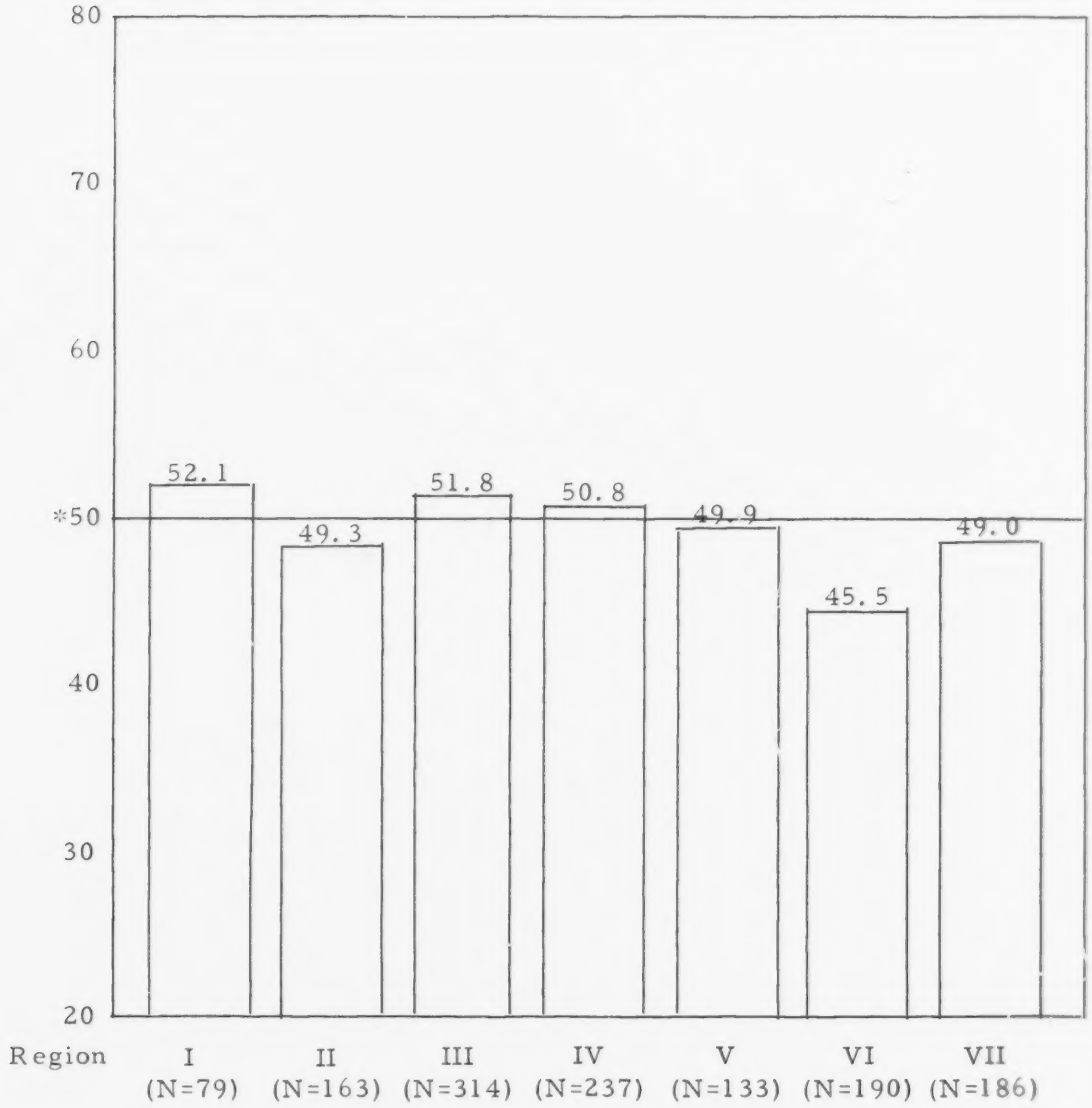
Eleventh grade students in mathematics are expected to score a 50.0 T-standard score by displaying ability to:

	Behavior	Concept or Skill	Stanford Achievement Test Measurement
1.	Apply	basic operations of whole numbers (addition, subtraction, multiplication, division)	SAT Test 2
2.	Comprehend	units of measurement (money, linear, liquid)	SAT Test 2
3.	Comprehend	numbers and numerals	SAT Test 2
4.	Comprehend	terms and symbols	SAT Test 2
5.	Know	geometry (points, lines, planes, angles)	SAT Test 2
6.	Comprehend	graphs and charts	SAT Test 2
7.	Comprehend	properties (associative, cumulative, distributive, zero, unity)	SAT Test 3
8.	Apply	problem-solving skills	SAT Test 3
9.	Comprehend	sets (union, empty, intersection, subsets)	SAT Test 3

FIGURE 1

STANFORD ACHIEVEMENT HIGH SCHOOL BASIC BATTERY TEST 2
NUMERICAL COMPETENCE
.92 Reliability Coefficient

Grade 11



*Stanford Achievement Test norm from national sample

Notice that the Stanford Achievement Test norm for Numerical Competence Test 2 is a T-standard score of 50.0. The pilot study sample of eleventh grade students produced a mean T-standard score of 50.0. According to the information displayed in Figure 1, Regions that failed to yield the proficiency level of 5.0 were:

1. Region II (49.3)
2. Region V (49.9)
3. Region VI (45.5)
4. Region VII (49.0)

A total sample item analysis identified the following SAT. Numerical Competence Test 2 items, where more than 50% of the students failed to meet the expected proficiency level:

Items: 22, 30, 32, 33, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45

An item analysis by region identified the following items where more than 50% of the students failed to meet the expected proficiency level:

Region I: 30, 31, 36, 37, 40, 41, 42, 44, 45

Region II: 22, 24, 25, 30, 32, 33, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45

Region III: 22, 30, 32, 33, 35, 36, 37, 39, 40, 41, 42, 43, 44, 45

Region IV: 3, 22, 32, 33, 36, 37, 39, 40, 41, 42, 43, 44, 45

Region V: 24, 25, 30, 32, 33, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45

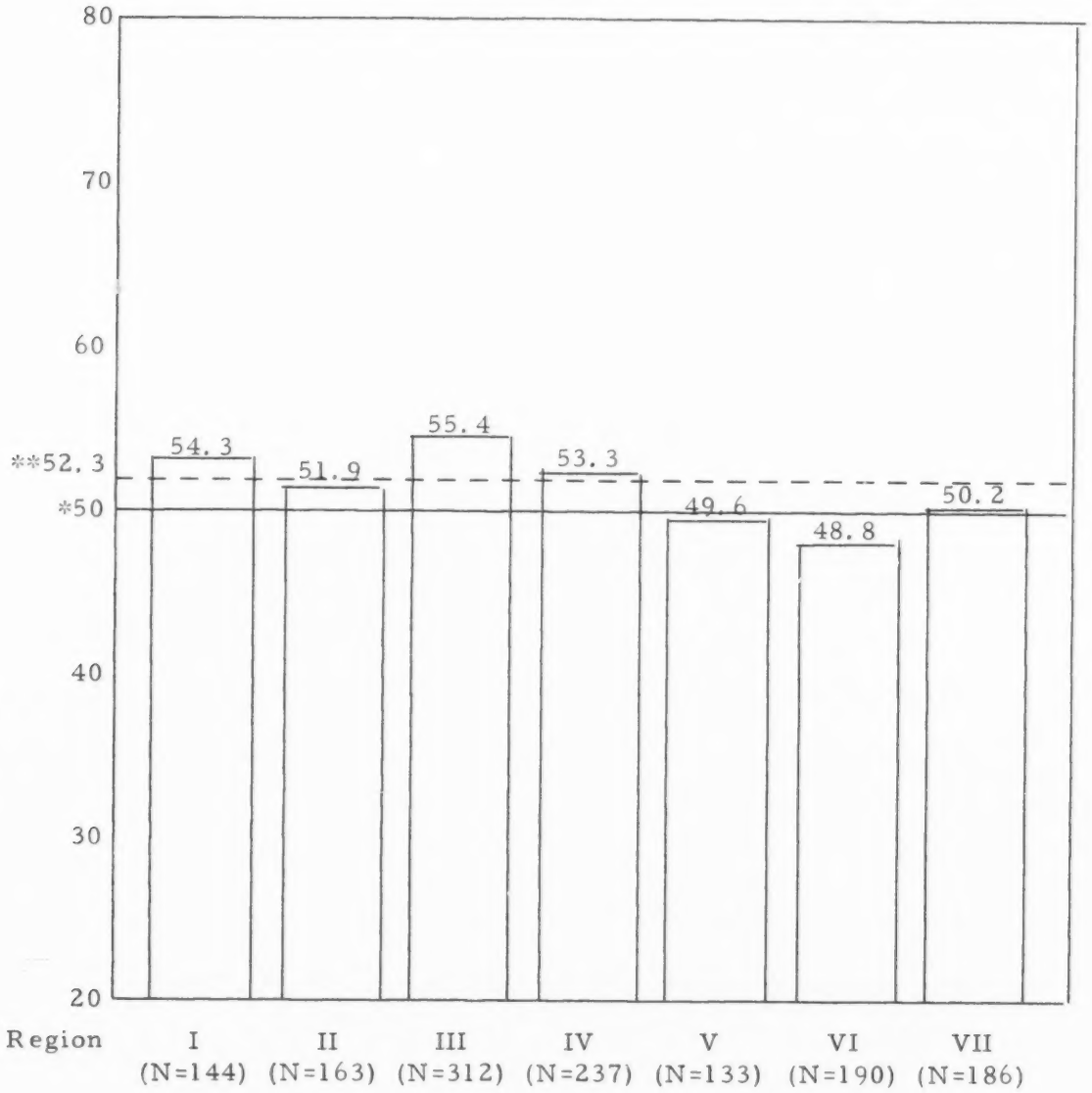
Region VI: 19, 21, 22, 24, 25, 28, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45

Region VII: 24, 30, 32, 33, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45

FIGURE 2

STANFORD ACHIEVEMENT HIGH SCHOOL BASIC BATTERY TEST 3
MATHEMATICS PART A
. 92 Reliability Coefficient

Grade 11



*Stanford Achievement Test norm from national sample
**Kentucky State norm from Learner Needs Assessment Pilot Program

Notice that the Stanford Achievement Test norm for Mathematics Test 3 is a T-standard score of 50.0. The Pilot Student sample of eleventh grade students produced a mean T-standard score of 52.3. According to the information displayed in Figure 2, Regions that failed to yield to the proficiency level of 50.0 were:

1. Region V (49.6)
2. Region VI (48.8)

A total sample item analysis identified the following SAT Mathematics Part A, Test 3, where more than 50% of the students failed to meet the expected proficiency level:

Items: 20, 24, 26, 29, 30, 31, 32, 34, 35, 36, 37, 38, 39, 40

An item analysis by Region identified the following items where more than 50% of the students failed to meet the expected proficiency level:

Region I: 20, 26, 29, 30, 31, 34, 35, 36, 38, 39, 40

Region II: 20, 24, 26, 28, 29, 30, 31, 32, 34, 35, 36, 37, 38, 39, 40

Region III: 20, 26, 30, 31, 35, 36, 37, 38, 40

Region IV: 20, 26, 29, 30, 31, 32, 34, 35, 36, 37, 38, 39, 40

Region V: 16, 18, 19, 20, 22, 23, 24, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40

Region VI: 9, 10, 18, 19, 20, 21, 22, 23, 24 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40

Region VII: 9, 19, 20, 22, 24, 26, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40

Objective #2

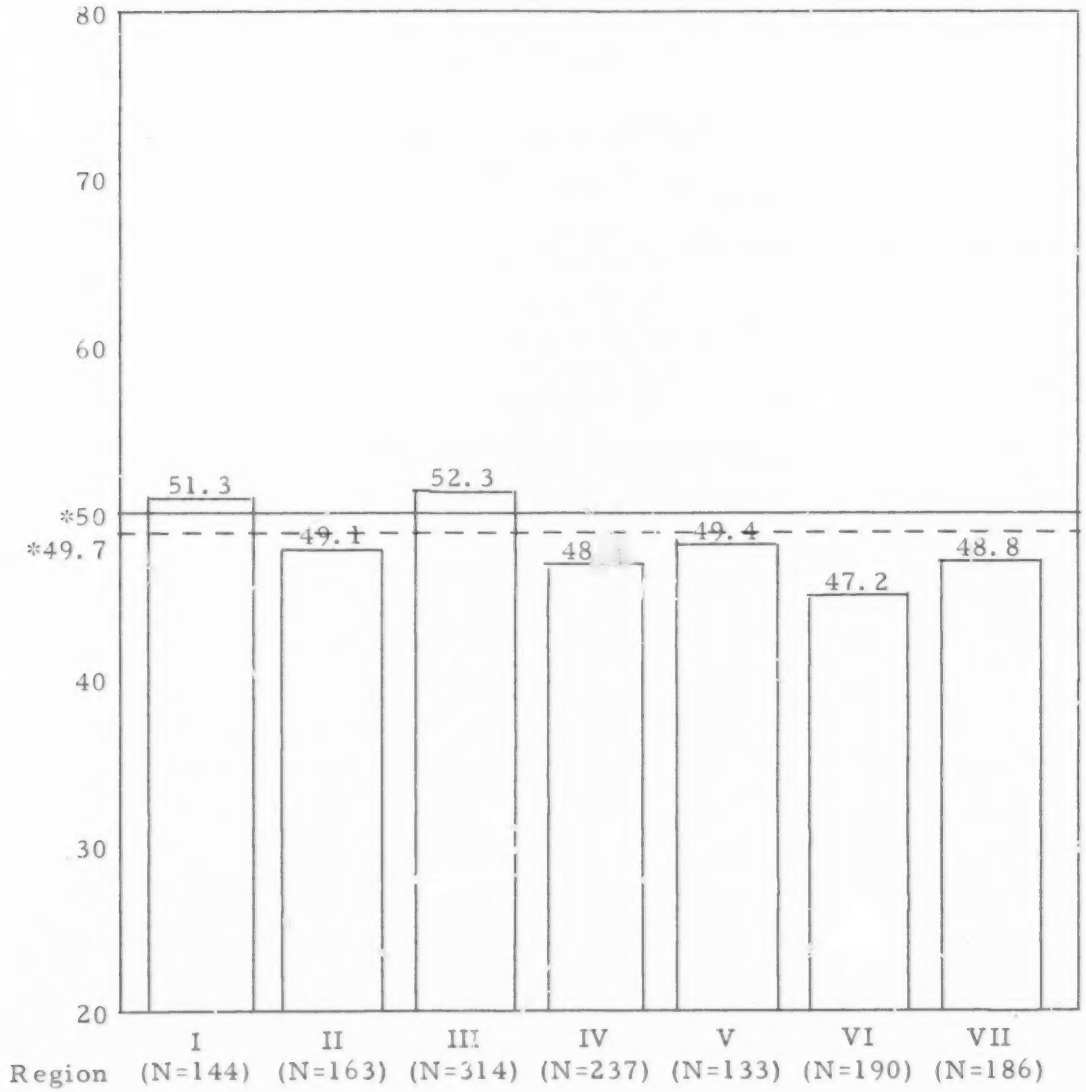
Eleventh grade students in reading are expected to score a 50.0 T-standard score by displaying ability to:

	Behavior	Concept or Skill	Stanford Achievement Test Measurement
1.	Comprehend	words and phrases	SAT Test 4
2.	Comprehend	reading content (sentences, paragraphs, stories)	SAT Test 4
3.	Analyze	reading content (sentences, paragraphs, stories)	SAT Test 4

FIGURE 3

STANFORD ACHIEVEMENT HIGH SCHOOL BASIC BATTERY TEST 4
READING
.92 Reliability Coefficient

Grade 11



*Stanford Achievement Test norm from national sample
**Kentucky State norm from Learner Needs Assessment Pilot Program

Notice that the Stanford Achievement Test norm for Reading Test 4 is a T-standard score of 50.0. The Pilot Study sample of eleventh grade students produced a mean T-standard score of 49.7. According to the information displayed in Figure 3, Regions that failed to yield the proficiency level of 50.0 were:

1. Region II (49.1)
2. Region IV (48.4)
3. Region V (49.4)
4. Region VI (47.2)
5. Region VII (48.8)

A total sample item analysis identified the following SAT Reading Test 4 items where more than 50% of the students failed to meet the expected proficiency level:

Items: 12, 13, 14, 20, 25, 26, 29, 36, 37, 38, 39, 40, 41, 42, 48, 49, 50, 51, 52, 53, 54, 55, 57, 60, 61, 62, 63, 64

An item analysis by Region, identified the following items where more than 50% of the students failed to meet the expected proficiency level:

Region I: 12, 13, 14, 20, 25, 26, 29. 30, 37, 38, 40, 41, 42, 48, 49, 50, 51, 52, 53, 54, 57, 59, 60, 61, 62, 63, 64, 65

Region II: 7, 8, 12, 13, 20, 25, 26, 29, 31, 32, 36, 37, 38, 39, 40, 41, 42, 48, 49, 51, 52, 53, 54, 57, 60, 61, 62, 63, 64

Region III: 12, 13, 20, 25, 26, 28, 29, 37, 38, 40, 48, 49, 50, 51, 52, 53, 54, 57, 60, 61, 62, 63, 64

Region IV: 1, 12, 13, 14, 20, 25, 26, 29, 36, 37, 38, 40, 41, 42, 43, 48, 49, 50, 51, 52, 53, 54, 55, 57, 60, 61, 62, 63, 64, 65

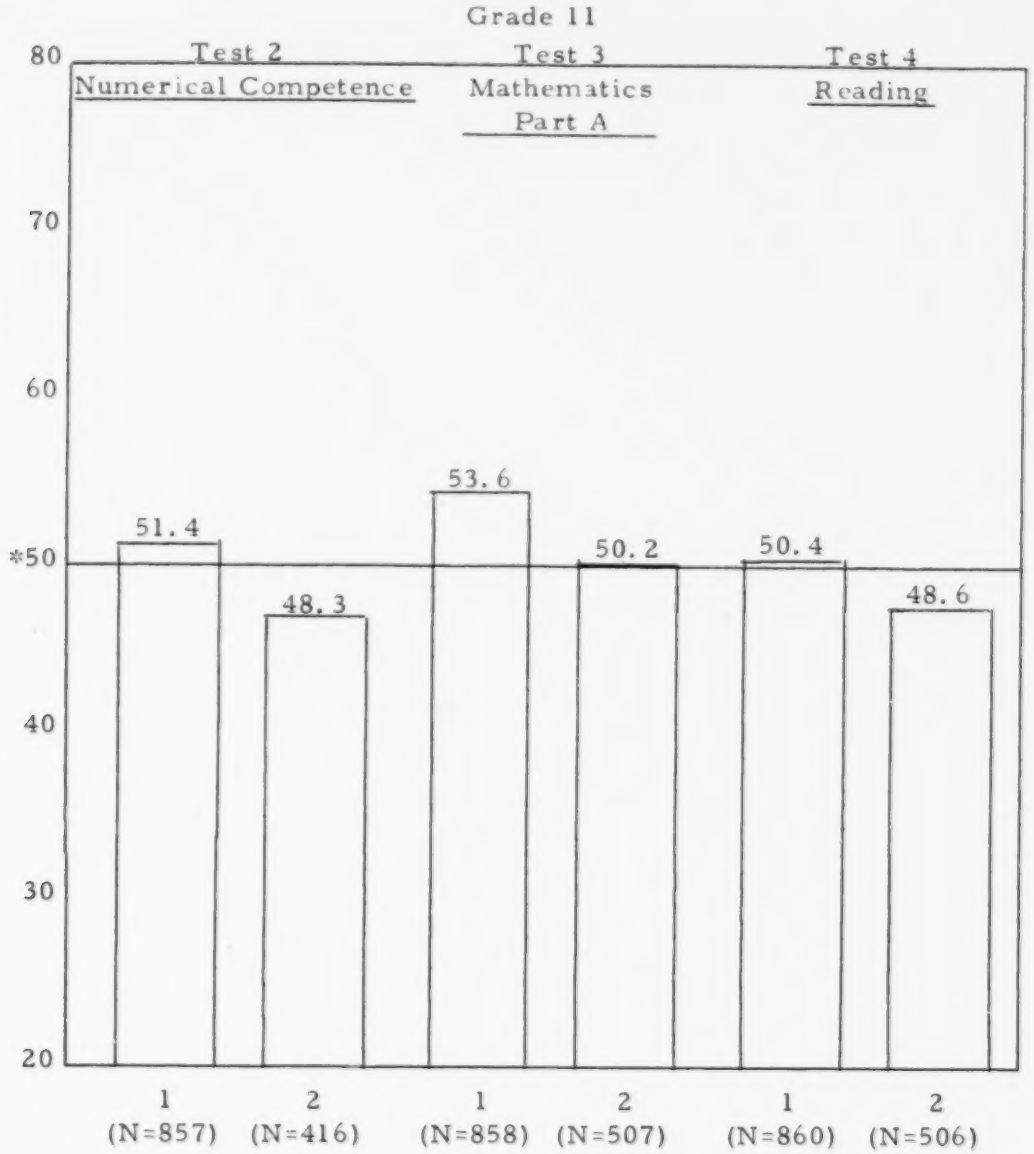
Region V: 8, 9, 12, 13, 14, 20, 25, 26, 29, 31, 36, 37, 38, 39, 40, 41, 42, 48, 29, 50, 51, 52, 53, 54, 57, 60, 61, 62, 63, 64

Region VI: 3, 7, 8, 12, 13, 14, 20, 23, 25, 26, 29, 31, 32, 36, 37, 38, 39, 40, 41, 42, 47, 48, 49, 50, 51, 52, 53, 54, 55, 57, 58, 59, 60, 61, 62, 63, 64, 65

Region VII: 8, 12, 13, 20, 23, 25, 26, 28, 29, 30, 32, 36, 37, 38, 39, 40, 41, 42, 47, 48, 49, 50, 51, 52, 53, 54, 55, 57, 60, 61, 62, 63, 64, 65

FIGURE 4

STANFORD ACHIEVEMENT TEST HIGH SCHOOL BASIC BATTERY SCORES ACCORDING TO ADJUSTED GROSS INCOME PER PUPIL



1 = Above Gross Median Income Per Student
2 = Below Gross Median Income Per Student

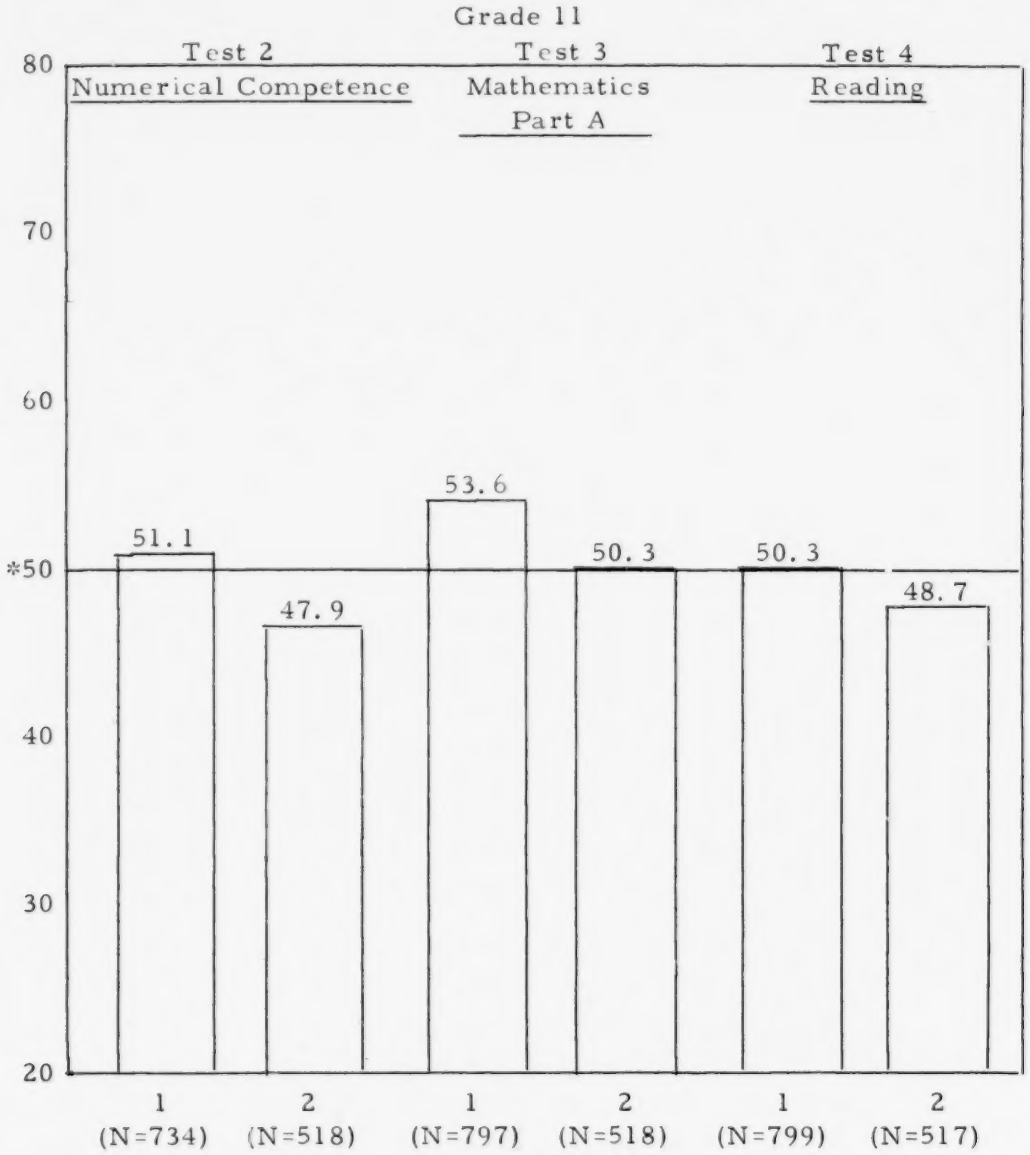
*Stanford Achievement Test norm from national sample

The following State-wide needs were identified for eleventh grade students in relation to the adjusted gross income per pupil variable:

Above Median	Below Median
No needs identified	Numerical Competence

FIGURE 5

STANFORD ACHIEVEMENT TEST HIGH SCHOOL BASIC BATTERY SCORES ACCORDING TO PER-PUPIL EXPENDITURE



1 = Above Median Per Pupil Expenditure
2 = Below Median Per Pupil Expenditure

*Stanford Achievement Test norm from national sample

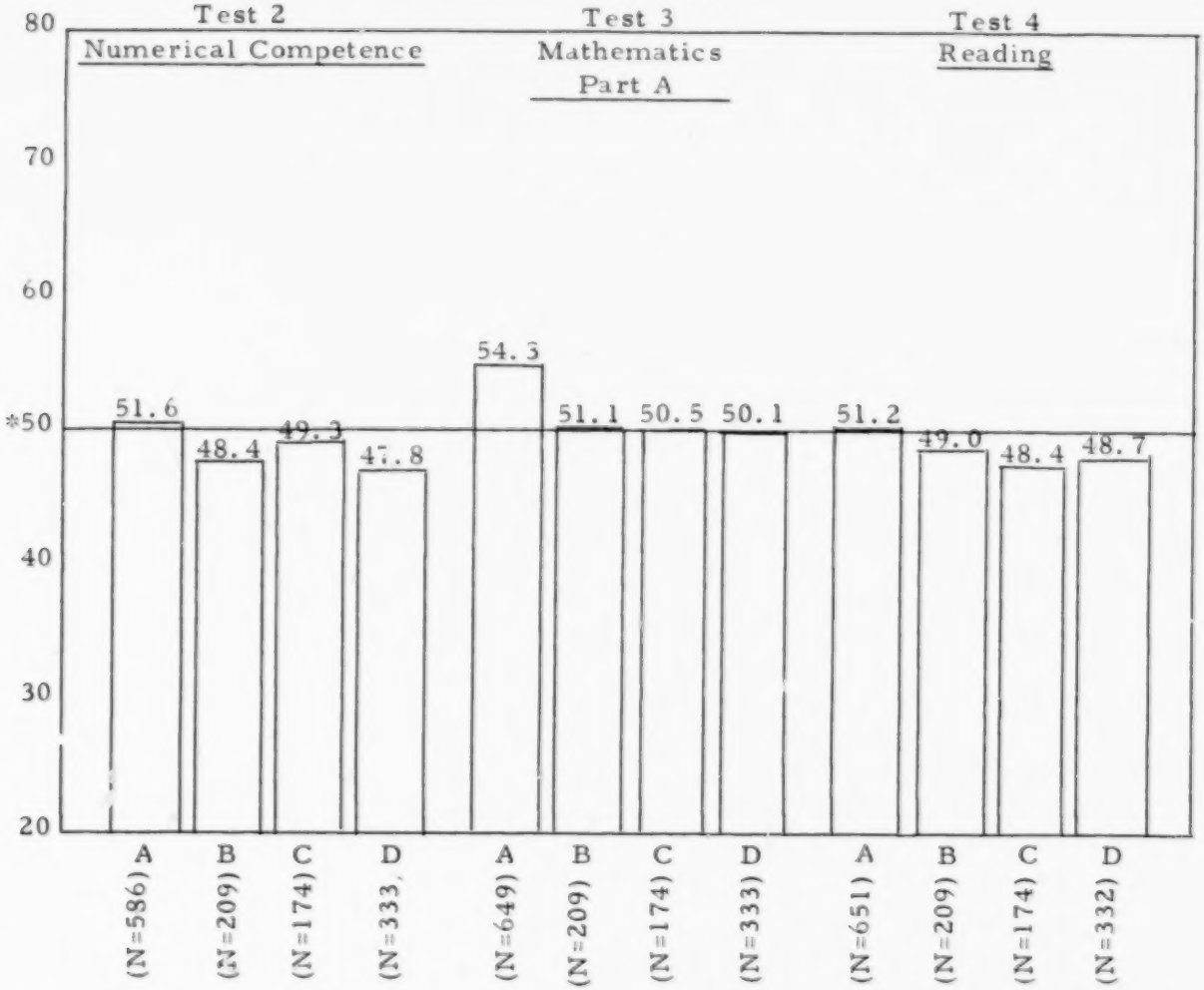
The following State-wide needs were identified for eleventh grade students in relation to the per pupil expenditure variable.

Above Median	Below Median
No needs identified	Reading Numerical Competence

FIGURE 6

STANFORD ACHIEVEMENT TEST HIGH SCHOOL BASIC BATTERY SCORES BY CATEGORIES OF ADJUSTED GROSS INCOME PER PUPIL AND PER-PUPIL EXPENDITURE

Grade 11



A: Above Median Adjusted Gross Income Per Pupil--Above Median Per Pupil Expenditure

B: Above Median Adjusted Gross Income Per Pupil--Below Median Per Pupil Expenditure

C: Below Median Adjusted Gross Income Per Pupil--Above Median Per Pupil Expenditure

D: Below Median Adjusted Gross Income Per Pupil--Below Median Per Pupil Expenditure

*Stanford Achievement Test norm from national sample

The following State-wide needs were identified for eleventh grade students in relation to categories A, B, C, and D:

1. Numerical Competence--categories B, C, and D
2. Mathematics Part A--no needs identified
3. Reading--categories B, C, and D

Learner Affective Needs

Objective #3

Eleventh grade students will respond positively toward self, school, peers, math, reading as measured by the Kentucky Student Attitude Inventory.

TABLE 50

GRADE ELEVEN AFFECTIVE RESPONSE MEAN SCORES

Region	Toward Self	Toward Peers	Toward Reading	Toward Math	Toward School	Total Response
I	15.1	15.8	13.3	11.4*	15.9	71.5
II	14.7	16.6	12.8	11.3*	15.8	71.2
III	14.0	14.5	11.9*	10.3*	19.2	67.9
IV	14.6	14.7	12.6	11.3*	15.2	68.9
V	14.3	15.6	12.8	10.0*	15.2	67.9
VI	14.9	15.4	13.7	11.2*	15.9	71.1
VII	14.6	15.8	12.9	11.3*	16.1	70.7
Kentucky Mean§	14.6	15.2	12.8	11.0	15.3	68.9

Possible score by category = 24
Total possible score = 120

The expected proficiency level of positive response was a score of 12 or more. A State-wide need was identified for eleventh grade student response toward mathematics (11.0). According to Table 50, the following Regional needs were identified:

Region I--Response Toward Mathematics

Region II--Response Toward Mathematics

Region III--Response Toward Mathematics and Reading

Region IV--Response Toward Mathematics

Region V--Response Toward Mathematics

Region VI--Response Toward Mathematics

Region VII--Response Toward Mathematics

TABLE 51

GRADE ELEVEN AFFECTIVE RESPONSE MEAN SCORES FOR BOYS AND GIRLS

	Toward Self	Toward Peers	Toward Reading	Toward Math	Toward School	Total Response
Boys	14.2	15.0	11.7*	11.5*	15.0	67.4
Girls	14.9	15.4	13.7	10.5*	15.6	70.1
Kentucky Mean	14.6	15.2	12.8	11.0	15.3	68.9

*identified need

Possible score for each category = 24
Total possible score = 120

According to Table 51, eleventh grade boys exhibited two need areas--response toward reading and mathematics, while girls displayed only a need in response toward mathematics. Note that the boys' response toward mathematics was more positive than the girls' response.

TABLE 52

GRADE ELEVEN AFFECTIVE RESPONSE MEAN SCORES FOR ADJUSTED GROSS INCOME PER STUDENT

	Toward Self	Toward Peers	Toward Reading	Toward Math	Toward School	Total Response
Above Median	14.6	15.1	12.7	11.0*	15.2	68.6
Below Median	14.7	15.5	12.9	10.7*	15.5	69.3
Kentucky Mean	14.6	15.2	12.8	11.0	15.3	68.9

*identified need

Possible score for each category = 24
Total possible score = 120

The information displayed in Table 52 identifies response toward mathematics as a need area for eleventh grade students with above and below median adjusted gross income per student. Note that in all instances other than response toward mathematics, the below median students responded in a more positive manner.

TABLE 53

GRADE ELEVEN AFFECTIVE RESPONSE MEAN SCORES FOR PER PUPIL EXPENDITURE

	Toward Self	Toward Peers	Toward Reading	Toward Math	Toward School	Total Response
Above Median	14.5	14.9	12.6	10.9*	15.1	68.0
Below Median	14.7	15.8	13.0	10.8*	15.7	70.0
Kentucky Mean	14.6	15.2	12.8	11.0	15.3	68.9

*identified need.

Possible score for each category = 24
Total possible score = 120

According to the information displayed in Table 53, response toward mathematics is identified as the only need area for above and below median per pupil expenditure. Note that in all other instances, the below median student responses were more positive.

TABLE 54

GRADE ELEVEN AFFECTIVE RESPONSE MEAN SCORES BY CATEGORIES OF ADJUSTED GROSS INCOME PER PUPIL AND PER-PUPIL EXPENDITURE

Category	Toward Self	Toward Peers	Toward Reading	Toward Math	Toward School	Total Response
A	14.5	14.8	12.6	10.8*	15.0	67.7
B	14.7	15.8	13.0	11.6*	16.0	71.1
C	14.5	15.1	12.3	11.0*	15.4	68.1
D	14.8	15.7	13.1	10.6*	15.6	69.8
Kentucky Mean	14.6	15.2	12.8	11.0	15.3	68.9

*identified need

Possible score for each category = 24
Total possible score = 120

A: Above Median Adjusted Gross Income Per Pupil--Above Median Per Pupil Expenditure
B: Above Median Adjusted Gross Income Per Pupil--Below Median Per Pupil Expenditure
C: Below Median Adjusted Gross Income Per Pupil--Above Median Per Pupil Expenditure
D: Below Median Adjusted Gross Income Per Pupil--Below Median Per Pupil Expenditure

The information presented by category in Table 54, identifies a common category need in response toward mathematics. All other student responses were positive with (1) category D students displaying

the most positive responses toward self and reading, (2) category B students displaying the most positive responses toward peers, mathematics and school.

Learner Psychomotor Needs

Objective #4

Eleventh grade students will demonstrate precision according to AAHPER satisfactory scores on selected psychomotor skills as measured by the AAHPER Physical Fitness Test.

TABLE 55

GRADE ELEVEN BOYS AAHPER PHYSICAL FITNESS TEST RESULTS

Region	Pull-ups No.	Sit-ups No.	Shuttle Run Seconds	Broad Jump Ft.	Broad Jump In.	50-Yard Dash Seconds	Softball Throw Feet	600-Yard Walk Min.	600-Yard Walk Sec.
I	10.4*	60.4	10.3	7	0	7.0	147.8	1	58
II	5.9	84.3	9.9	6	11	6.6	171.7	1	56
III	8.5	63.5	10.0	6	5	6.5*	164.8	1	49
IV	5.8	73.2	10.0	6	10	6.7	203.5*	2	0
V	7.9	60.2	9.9	7	0	6.8	170.5	2	4
VI	7.0	60.7	9.8	7	1	6.8	174.9	1	59
VII	7.4	73.1	10.1	6	11	6.6	178.0	1	57
AAHPER Satisfactory Score	9	99	9.7	7	4	6.5	189	1	47
Kentucky Mean	7.2	68	10	6	11	6.7	177.7	1	59

*satisfactory level attained

All scores displayed are dominant age scores (sixteen years) in order to utilize the AAHPER norms. The Kentucky mean includes all boys tested in the eleventh grade utilizing the AAHPER satisfactory score for eleventh grade boys, the following State-wide needs were identified:

1. Pull-ups
2. Sit-ups
3. Shuttle Run
4. Broad Jump
5. 50-Yard Dash
6. Softball Throw
7. 600-Yard Walk

Regional eleventh grade boy needs identified were:

1. Pull-ups--Regions II, III, IV, V, VI, and VII
2. Sit-ups--all Regions
3. Shuttle Run--all Regions
4. Broad Jump--all Regions
5. 50-Yard Dash--Regions I, II, IV, V, VI, and VII
6. Softball Throw--Regions I, II, III, V, VI, and VII
7. 600-Yard Walk--all Regions

TABLE 56

GRADE ELEVEN GIRLS AAHPER PHYSICAL FITNESS TEST RESULTS

Region	Flexed Arm Hang Seconds	Sit-ups No.	Shuttle Run Seconds	Broad Jump Ft.	Broad Jump In.	50-Yard Dash Seconds	Softball Throw Feet	600-Yard Walk Min.	600-Yard Walk Sec.
I	16.8	36*	10.9*	5	10*	8.1	86.9*	2	43
II	8.4*	30.3*	11.3	5	6*	8.3	80.5	2	45
III	12.3	46.7*	12.7	6	1*	11.9	83.5*	6	5
IV	14.0	28.7	13.7	4	10	8.9	77.0	3	1
V	8.8*	23.1	11.7	5	0	8.3	94.5*	3	0
VI	11.0	26.1	11.6	5	6*	10.0	73.0	4	12
VII	12.2	31.6*	12.0	4	10	8.3	77.3	2	54
AAHPER Satisfactory Score	9	30	11.0	5	6	8.0	81	2	42
Kentucky Mean	12.3	28.4	12.3	5	0	8.6	80.5	3	0

*satisfactory level attained.

All scores displayed are dominant age scores (sixteen years) in order to utilize the AAHPER norms. The Kentucky mean includes all girls tested in the eleventh grade. Utilizing the AAHPER satisfactory score for eleventh grade girls, the following State-wide needs were identified:

1. Flexed Arm Hang
2. Sit-ups
3. Shuttle Run
4. Broad Jump
5. 50-Yard Dash
6. Softball Throw

Regional eleventh grade girl needs identified were:

1. Flexed Arm Hang--Regions I, III, IV, VI, and VII
2. Sit-ups--Regions IV, V, and VI
3. Shuttle Run--Regions II, III, IV, V, VI, and VII
4. Broad Jump--Regions IV, V, and VII
5. 50-Yard Dash--all Regions
6. Softball Throw--Regions II, IV, VI, and VII
7. 600-Yard Walk--all Regions

TABLE 57

GRADE ELEVEN BOYS AAHPER PHYSICAL FITNESS TEST RESULTS OF ABOVE AND BELOW MEDIAN ADJUSTED GROSS INCOME PER PUPIL

	Pull-ups	Sit-ups	Shuttle Run	Broad Jump	50-Yard Dash	Softball Throw	600-Yard Walk
	No.	No.	Seconds	Ft. In.	Seconds	Feet	Min. Sec.
Above Median	7.1	68.2	10	6 11	6.7	189*	1 59
Below Median	7.2	67.7	9.9	6 10	6.8	167.4	1 40*
AAHPER Satisfactory Score	9	99	99.7	7 4	6.5	189	1 47
Kentucky Mean	7.2	68	10	6 11	6.7	177.7	1 59

*satisfactory level attained

State-wide needs were identified in all activities for eleventh grade boys in relation to the adjusted gross income per pupil variable, with two exceptions--the softball throw for above median boys and the 600-yard walk for below median boys.

TABLE 58

GRADE ELEVEN GIRLS AAHPER PHYSICAL FITNESS TEST RESULTS OF ABOVE AND BELOW MEDIAN ADJUSTED GROSS INCOME PER PUPIL

	Flexed Arm Hang	Sit-ups	Shuttle Run	Broad Jump		50-Yard Dash	Softball Throw	600-Yard Walk	
	Seconds	No.	Seconds	Ft.	In.	Seconds	Feet	Min.	Sec.
Above Median	13.6	30.4*	11.9	5	1	8.1	82.7*	2	59
Below Median	10.8	26.2	12.9	5	1	9.1	80.0	3	1
AAHPER Satisfactory Score	9	30	11.0	5	6	8.0	81	2	42
Kentucky Mean	12.3	28.4	12.3	5	0	8.6	80.5	3	0

*satisfactory level attained

State-wide needs were identified in all activities for eleventh grade girls in relation to the adjusted gross income per pupil variable, with two exceptions--sit-ups and the softball throw for above median girls.

TABLE 59

GRADE ELEVEN BOYS AAHPER PHYSICAL FITNESS TEST RESULTS OF ABOVE AND BELOW MEDIAN PER-PUPIL EXPENDITURE

	Pull-ups	Sit-ups	Shuttle Run	Broad Jump	50-Yard Dash	Softball Throw	600-Yard Walk
	No.	No.	Seconds	Ft. In.	Seconds	Feet	Min. Sec.
Above Median	5.6	71.4	10.1	6 10	6.7	191.7*	2 0
Below Median	8.5	62.6	10.0	7 0	6.7	172.3	1 59
AAHPER Satisfactory Score	9	99	9.7	7 4	6.5	189	1 47
Kentucky Mean	7.2	68	10	6 11	6.7	177.7	1 59

*satisfactory level attained

State-wide needs were identified in all activities for eleventh grade boys in relation to the per pupil expenditure variable, with one exception--the softball throw for above median boys.

TABLE 60

GRADE ELEVEN GIRLS AAHPER PHYSICAL FITNESS TEST RESULTS OF ABOVE AND BELOW MEDIAN PER-PUPIL EXPENDITURE

	Flexed Arm Hang	Sit-ups	Shuttle Run	Broad Jump	50-Yard Dash	Softball Throw	600-Yard Walk
	Seconds	No.	Seconds	Ft. In.	Seconds	Feet	Min. Sec.
Above Median	12.5	29.2	13.7	4 10	8.9	78.4	3 0
Below Median	12.4	27.1	11.6	5 2	8.4	82.7*	3 1
AAHPER Satisfactory Score	9	30	11.0	5 66	8.0	81	2 42
Kentucky Mean	12.3	28.4	12.3	5 0	8.6	80.5	3 0

*satisfactory level attained

State-wide needs were identified in all activities for eleventh grade girls in relation to the per pupil expenditure variable, with one exception--the softball throw for below median girls.

TABLE 61

GRADE ELEVEN BOYS AAHPER PHYSICAL FITNESS TEST RESULTS BY CATEGORIES OF ADJUSTED GROSS INCOME PER PUPIL AND PER PUPIL EXPENDITURE

Category	Pull-ups No.	Sit-ups No.	Shuttle Run Seconds	Broad Jump Ft.	Broad Jump In.	50-Yard Dash Seconds	Softball Throw Feet	600-Yard Walk Min.	600-Yard Walk Sec.
A	5.8	69.9	10.1	6	11	6.8	191.8*	2	2
B	9.5*	64.9	10.0	6	11	6.5*	185.7	1	55
C	4.6	87.6	9.7*	6	5	6.6	169.4	1	55
D	7.8	62.5	10.0	7	0	6.8	166.9	2	1
AAHPER Satisfactory Score	9	99	9.7	7	4	6.5	189	1	47
Kentucky Mean	7.2	68	10	6	11	6.7	177.7	1	59

*satisfactory level attained

A: Above Median Adjusted Gross Income Per Pupil--Above Median Per Pupil Expenditure
B: Above Median Adjusted Gross Income Per Pupil--Below Median Per Pupil Expenditure
C: Below Median Adjusted Gross Income Per Pupil--Above Median Per Pupil Expenditure
D: Below Median Adjusted Gross Income Per Pupil--Below Median Per Pupil Expenditure

The following State-wide needs for eleventh grade boys were identified by category:

1. Pull-ups--categories A, C, and D
2. Sit-ups--all categories
3. Shuttle Run--categories A, B, and D
4. Broad Jump--all categories

5. 50-Yard Dash--categories A, C, and D

6. Softball Throw--categories B, C, and D

7. 600-Yard Walk--all categories

TABLE 62

GRADE ELEVEN GIRLS AAHPER PHYSICAL FITNESS TEST RESULTS BY CATEGORIES OF ADJUSTED GROSS INCOME PER PUPIL AND PER PUPIL EXPENDITURE

Category	Flexed Arm Hang Seconds	Sit-ups No.	Shuttle Run Seconds	Broad Jump Ft.	Broad Jump In.	50-Yard Dash Seconds	Softball Throw Feet	600-Yard Walk Min.	600-Yard Walk Sec.
A	13.4	30.6*	12.0	4	11	8.1	84.4*	2	59
B	13.8	30.2*	11.6	5	3	8.1	80.3	2	57
C	9.0*	29.1	18.2	4	4	11.4	55.4	3	2
D	11.3	25.4	11.6	5	2	8.5	83.5*	3	1
AAHPER Satisfactory Score	9	30	11.0	5	6	8.0	81	2	42
Kentucky Mean	12.3	28.4	12.3	5	0	8.6	80.5	3	0

*satisfactory level attained

A: Above Median Adjusted Gross Income Per Pupil--Above Median Per Pupil Expenditure

B: Above Median Adjusted Gross Income Per Pupil--Below Median Per Pupil Expenditure

C: Below Median Adjusted Gross Income Per Pupil--Above Median Per Pupil Expenditure

D: Below Median Adjusted Gross Income Per Pupil--Below Median Per Pupil Expenditure

The following State-wide needs for eleventh grade girls were identified by category:

1. Flexed Arm Hang--categories A, B, and D
2. Sit-ups--categories C and D
3. Shuttle Run--all categories
4. Broad Jump--all categories
5. 50-Yard Dash--all categories
6. Softball Throw--categories B and C
7. 600-Yard Walk--all categories